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McGill University

Montreal

ANNUAL REPORT

of the

GOVERNORS, PRINCIPAL
AND FELLOWS

FOR THE YEAR
1923-1924

ANNUAL REPORT

OF THE

GOVERNORS, PRINCIPAL and FELLOWS

OF

McGill University

FOR THE YEAR 1923-24

To His Excellency the Right Honourable Sir Julian Hedworth Byng, Baron Byng of Vimy, G.C.B., G.C.M.G., M.V.O., Governor General and Commander-in-Chief of the Dominion of Canada, Visitor of McGill University.

MAY IT PLEASE YOUR EXCELLENCY:—

I have the honour to submit to you, as Visitor of McGill University, the Annual Report of the Governors, Principal and Fellows for the Session 1923-1924, being the one hundred and third year since the foundation of the University.

I have the honour to be

Your Excellency's most

obedient servant,

A. W. CURRIE,

October, 1924. *Principal.*

McGill University

MONTREAL

REPORT OF THE PRINCIPAL

Session 1923-1924

I

OUR SYSTEM AND ITS RESULTS

§1

THE UNIVERSITY AND THE UNDERGRADUATE

No one who is interested in education can fail to have asked: "What does the University do for the Undergraduate?" and if we find ourselves able to answer this question satisfactorily, we shall be well on the way to a solution of one of our most important problems.

The duty of the University is, in a way, two-fold: on the one hand to the State, and on the other to the young men and women who come to her to equip themselves for the business of life. She is responsible to the State for the provision of loyal and useful citizens, for the efficient filling of the public services, and for the maintenance of that culture upon which in the last resort Western Civilization must depend. She is bound, as far as in her lies, to aid each individual in attaining the highest degree of proficiency that can be gained during the college period, and to instil in each individual a true conception of those ideals of life and culture, which are his birthright as a citizen.

Putting on the one side for the time being the consideration of the manner in which the University is fulfilling her duty to the State, it is essential that we should now and then pause and note how far she is fulfilling her responsibility to the individual under-

graduate, and in dealing with this issue it is not without importance to note the extent to which those undergraduates who come to McGill are successful in reaching their final year, for it is unfortunately a fact that of those who are successful in passing the Matriculation Examinations, many fail to complete their course.

The following tables show the diminution owing to wastage from various causes in those classes whch entered in the autumn of 1920.

FACULTY OF ARTS
CLASS OF 1924

SESSION 1920-1921

	Arts	R.V.C.	Total
1. Number of Undergraduates matriculated exclusive of partial students in Fall of 1920	82	63	145
2a. Number leaving before September, 1921	28 (+2 transferred to Com.)	13 (+2 transferred to Com.)	41
2b. Failing in examinations	14	9	23
Financial	..	..	..
Other reasons (state if possible)	1 died 6 went to other Faculties or Universities 5	4	
3. Number losing year and entering class of 1925	8	7	15
4. Number conditioned on entering Session 1921-1922	15	9	24

SESSION 1921-1922

Number of Undergraduates entering Second Year in 1912	46	43	89
2a. Number leaving before September, 1922	7	9	16
2b. Failing in examinations	3	2	5
Financial	..	.	..
Other reasons (state if possible)	2 transferred to other Faculties or Universities	1 illness 1 Macdonald 5 ——	
3. Number losing year and entering class of 1925	3	..	3
4. Number conditioned on entering Session 1922-23	7	6	13

SESSION 1922-1923

	Arts	R.V.C.	Total
1. Number entering Third Year September, 1922	38	32	70
2a. Number leaving before September, 1923	2	1	3
2b. Failing in examinations	..	..	..
Financial	..	1	..
Other reasons (state, if possible)	1 transferred to another university 1 ——		

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3. Number losing year and entering class of 1925	..	..	0
4. Number conditioned on entering Session 1923-1924	3	1	4

SESSION 1923-1924

	Arts	R.V.C.	Total
1. Number entering Fourth Year, September, 1923	36	31	67
2a. Number leaving before March 1st, 1924	..	1	1
2b. Failing in examinations	..	..	..
Financial	..	..	..
Other reasons (state, if possible)	..	1 ill health	..
3. Number losing year and entering class of 1925	..	..	..
4. Number graduating in May, 1924	37*	37	74†

*One student from a former year passed supplemental examinations and obtained his degree.

Nine students had repeated years.

SCHOOL OF COMMERCE

CLASS OF 1923

SESSION 1920-1921

1. Number of Undergraduates matriculated, exclusive of partial students in Fall of 1920	83
2a. Number leaving before September, 1921	22
2b. Failing in examinations	13
Financial	..
Other reasons (state, if possible)	9
3. Number losing year and entering class of 1924	5
4. Number conditioned on entering Session 1921-1922	16

SESSION 1921-1922

1. Number entering Second Year in 1921		54
2a. Number leaving before September, 1922		12
2b. Failing in examinations		8
Financial		..
Other reasons (state, if possible)	1 died 2 family affairs 1 ——	
3. Number losing year and entering class of 1924		1
4. Number conditioned on entering Session 1922-1923		8

SESSION 1922-1923

1. Number entering Third Year, September, 1922 from Second Year	41
2a. Number leaving before September, 1923	..
2b. Failing in examinations	4
Financial	..
Other reasons (state, if possible)	1
3. Number losing year and entering class of 1924	..
4. Number graduating in May, 1923	45

* Includes 9 other than original matriculants.

APPLIED SCIENCE
CLASS OF 1924
SESSION 1920-1921

	Engineering Course	Architecture	Remarks
1. Number of Undergraduates matriculated, exclusive of partial students, in Fall of 1920	160	3	N.B.—Of the 36 repeating, 18 left before fentering 2nd Year and 7 left before entering the 3rd Year. The remaining 11 are still in attendance but, of course,theyhave not yet entered the 4th Year.
2a. Number leaving before September, 1921	35	..	
2b. Failing in examinations	21	..	
Financial	..	..	
Other reasons (state, if possible)	13 (reasons unknown 1 (transferred to Law		
3. Number losing year and entering class of 1925	36	..	
4. Number conditioned on entering Session 1921-22	7	1	
Repeating Year 1, Session 1921-22	36	..	
Entering Second Year, Session 1921-22	89	3	

SESSION 1921-1922

	Engineering Course	Remarks
1. Number entering Second Year, September, 1921	89	
2a. Number leaving before September, 1922	10	N.B.—Of the 7 repeating, 4 left before entering the 2nd Year, 3 are still in attendance but have not yet entered the 4th year. Figures for Architecture omitted, as the arrangement of these tables are not applicable.
2b. Failing in examinations	5	
Financial	..	
Other reasons (state, if possible)	5 (unknown)	
3. Number losing year and entering class of 1925	7	
4. Number conditioned on entering Session 1922-23	7	
Repeating Year II Session 1922-23	7	
Entering Third Year Session 1922-23	72	

SESSION 1922-1923

	Chem.	Civil	Elec.	Mech.	Metall.	Mining
1. Number entering Third Year, September, 1922	8	15	20	18	..	11
2a. Number leaving before September, 1923	..	..	2	2	..	6
2b. Failing in exams	..	..	1 (unknown)	..	..	5 (unknown)
Financial	..	..	..	..	..	1 financial)
Other reasons (state, if possible)	..	..	1 (urgent business	2 (unknown)	..	..

3. Number losing year and entering class 1925	..	..	..	..	..	..
4. Number conditioned on entering session 1923-24*	..	5	4	9	..	..
Entering Fourth Year session 1923-24	8	15	18	16	0	5

Total entering Third Year Session 1922-23 ..... 74 students
Total entering Fourth Year Session 1923-24 ..... 64 students

*One student repeating Year III transferred from Electrical to Mining Engineering.

SESSION 1923-24

	Chem.	Civil	Elec.	Mech.	Metall.	Mining
1. Number entering Fourth Year September, 1923	8	15	18	16	..	5
2a. Number leaving before September, 1924	..	..	1	..	..	..
2b. Failing in exams	..	..	Died	..	..	..
Financial	..	..	..	..	..	..
Other reasons (state, if possible)	..	..	..	..	..	..
3. Number losing year and entering class 1925	..	..	1	1	..	..
4. Number conditioned on entering session 1924-25	..	..	..	..	..	..
5. Graduated May, 1924	7	11	14	11	..	5
6. To take supplemental examinations Sept., 1924 or May, 1925	1	4	2	4	..	..

STUDENTS ENTERING THE THIRD YEAR FROM AFFILIATED COLLEGES (Not included in previous sheets)

SESSION 1922-23

	Chem.	Civil.	Elec.	Metall.	Mech.	Mining
1. Number entering Third Year September, 1922	5	5	7	4	5	6
2a. Number leaving before September, 1923	1	..	3	..	..	1
2b. Failing in exams	..	..	..	..	..	..
Financial	..	..	..	..	..	..
Other reasons (state, if possible)	1 (unknown reasons)	..	2 (unknown. Several failures. 1 illness	..	..	1 (unknown reasons)
3. Number losing year and entering class of 1925	..	..	..	..	..	..

4. Number conditioned on entering session 1923-24..	1	..	..	..	2	1
Repeating Year III, session 1923-24	..	..	..	..	1	..
Entering Fourth Year, session 1923-24	4	5	4	4	4	5

Total entering Third Year, session 1922-23 32
Total entering Fourth Year, session 1923-24 26

STUDENTS FROM AFFILIATED COLLEGES ENTERING FOURTH YEAR, having taken Third Year at McGill University 1922-23

(Not included on other Fourth Year sheet)

SESSION 1923-24

	Chem.	Civil	Elec.	Metall.	Mech.	Mining
1. Number entering Fourth Year, September, 1923...	4	5	4	4	4	5
2a. Number leaving before September, 1924	..	..	..	..	..	..
2b. Failing in exams	..	..	..	..	..	..
Financial	..	..	..	..	..	..
Other reasons (state, if possible)	..	..	..	..	..	..
3. Number losing year and entering class of 1925	..	..	..	..	1	..
4. Number conditioned on entering session 1924-25..	..	..	..	..	..	..
5. Graduated May, 1924	2	5	4	4	3	5
6. To take supplemental examinations Sept. 1924 or May, 1925	2	..	..	..	..	..

FACULTY OF MEDICINE
CLASS OF 1926
SESSION 1920-1921

1. Number of Undergraduates matriculated, exclusive of partial students, in Fall of 1920:			
New students	119		
Repeating students	5		
			124
2a. Number leaving before September, 1921			17
2b. Failing in examinations	11		
Financial:			
Transferred to other schools	3		
Other reasons (state, if possible):			
Left on account of illness	2		
Reason unknown	1		
3. Number losing year and entering class of 1927			19
4. Number conditioned on entering Session 1921-1922			0

SESSION 1921-1922

1. Number entering Second Year, September, 1921:			
Passed from First Year	88		
Repeating Year	10		
From other schools	19		
			117
2a. Number leaving before September, 1922			11
2b. Failing in examinations	9		
Financial	1		
Other reasons (state, if possible):			
Got married (woman student)	1		
3. Number losing year and entering class of 1927			13
4. Number conditioned on entering Session 1922-1923			..

SESSION 1922-1923

1.	Number entering Third Year, September, 1922:		
	Passed from Second Year	93	
	Repeating Year	5	
	From other schools	1	
			99
2a.	Number leaving before September, 1923		1
2b.	Failing in examinations		1
	Financial		..
	Other reasons (state, if possible)		..
3.	Number losing year and entering class of 1927		5
4.	Number conditioned on entering Session 1923-1924		..

SESSION 1923-1924

1.	Number entering Fourth Year, September, 1923:		
	Passed from Third Year	88	
	Repeating Year	2	
	From other schools	6	
			96
2a.	Number leaving before March 1st, 1924		1
2b.	Failing in examinations		..
	Financial		..
	Other reasons (state, if possible):		
	Illness		1
3.	Number losing year and entering class of 1927		4

FACULTY OF LAW

CLASS OF 1923

SESSION 1920-1921

1.	Number of Undergraduates matriculated, exclusive of partial students, in Fall of 1920	41
2a.	Number leaving before September, 1921	4
2b.	Failing in examinations	4
	Financial	..
	Other reasons (state if possible)	..
3.	Number losing year and entering class of 1924	1
4.	Number conditioned on entering Session 1921-1922	2

SESSION 1921-1922

1.	Number entering Second Year, September, 1921	23
2a.	Number leaving before September, 1922	9
2b.	Failing in examinations	..
	Financial	..
	Other reasons (state, if possible)	3
3.	Number losing year and entering class of 1924	..
4.	Number conditioned on entering Session 1922-1923	1

SESSION 1922-1923

1.	Number entering Third Year, September, 1922	24
2a.	Number leaving before September, 1923	6
2b.	Failing in examinations	5
	Financial	..
	Other reasons (state, if possible)	1
3.	Number losing year and entering class of 1924	3

FACULTY OF DENTISTRY

CLASS OF 1924

SESSION 1920-1921

1.	Number of Undergraduates matriculated, exclusive of partial students, in Fall of 1920	50

2a. Number leaving before September, 1921	19
2b. Failing in examinations	14
Financial	2
Other reasons state (if possible)	..
Left during session	3
Reason unknown	..
3. Number losing year and entering class of 1925	10
4. Number conditioned on entering Session 1921-1922	11

SESSION 1921-1922

1. Number entering Second Year, September, 1921	*22
2a. Number leaving before September, 1922	..
2b. Failing in examinations	..
Financial	..
Other reasons (state, if possible)	..
3. Number losing year and entering class of 1925	2
4. Number conditioned on entering Session 1922-1923	..

*Two men entered Second Year: one transferred from Toronto, and the other was out ill for one year.

SESSION 1922-1923

1. Number entering Third Year, September, 1922	21
2a. Number leaving before Septemzer, 1923	3
2b. Failing in examinations	..
Financial	..
Other reasons (state, if possible):	
Transferred to Royal College of Dental Surgeons	3
3. Number losing year and entering class of 1925	..
4. Number conditioned on entering Session 1923-1924	..

SESSION 1923-1924

1. Number entering Fourth Year, September, 1923	*19
2a. Number leaving before March 1st, 1924	1
2b. Failing in examinations	4
Financial	..
Other reasons (state, if possible)	..
3. Number losing year and entering class of 1925	1

*Including one from another College.

FACULTY OF AGRICULTURE

CLASS OF 1924

SESSION 1920-1921

1. Number of Undergraduates matriculated, exclusive of partial students, in Fall of 1920	7
2a. Number leaving before September, 1921	2
2b. Failing in examinations—had his matriculation to complete and 2 supps. outstanding. Contemplated taking theology	1
Financial	..
Other reasons (state, if possible):	
Took 68.70% in 1st year but ignored all requests for advice as to returning for second year; now on home farm	1
3. Number losing year and entering class of 1925	..
4. Number conditioned on entering Session 1921-1922	..

SESSION 1921-1922

1. Number entering Second Year, September, 1921	5
2a. Number leaving before September, 1922	..
2b. Failing in examinations	..
Financial	..
Other reasons (state, if possible)	0
3. Number losing year and entering class of 1925	0
4. Number conditioned on entering Session 1922-1923	.

SESSION 1922-1923

1. Number entering Third Year, September, 1922:	
Continuing for 2nd year 1921-22	5
Class of 1923, who had remained out or who had left on account of illness during 1921-22	3
N.S.A.C. graduate entering at 3rd year	1
Previously trained in Great Britain, entering 3rd year	1
2a. Number leaving before September, 1923	3

2b. Failing in examinations:
Withdrew September 26, 1922, as expected to be only Anima Husb. student during 1st term; now studying in B.C. 1
Withdrew October 2, 1922, as expected to be only Animal Husb. student during second term; returned 1923-24 1
Withdrew for 1923-24 to complete matriculation and to clear off other conditions 1
Financial ....
Other reasons (state, if possible) ....
3. Number losing year and entering class of 1925 ....
4. Number conditioned on entering Session 1923-1924 3

SESSION 1923-1924

1. Number entering Fourth Year, September, 1923 7
2a. Number leaving before September, 1924 1
Called home on account of death of father and did not return. Expects to return second term 1924-25.
2b. Failing in examinations ....
Financial ....
Other reasons (state, if possible) ....
3. Number losing year and entering class of 1925 ....

A further interesting table has been prepared by the Dean of the Faculty of Arts.

FACULTY OF ARTS
1922-1923
(Men only)

	1st Year	2nd Year	3rd Year	4th Year
Total in year	138	69	47	58
Passed in all subjects	39%	67%	72%	93%
Failed in 1 subject	19%	12%	19%	5%
Failed in 2 subjects	17%	13%	7%	....
Failed in 3 subjects	6%	3%	2%	....
Failed in 4 subjects	6%	4%	....	....
Failed in 5 subjects	4%	....	....	2%
Failed in whole year	1%	....	....	....
Left before end of session	7%	1%	....	....
Granted year on account of overseas service	1%	....	....	....
Obtained honours (these are also included in the above totals)	....	83%	87%	97%

SCHOOL OF COMMERCIAL STUDIES
1922-1923
(Men only)

	1st Year	2nd Year	3rd Year
Total in year	83	43	50
Passed in all subjects	33%	52%	90%
Failed in 1 subject	16%	28%	4%
Failed in 2 subjects	18%	9%	6%
Failed in 3 subjects	7%	2%	....
Failed in 4 subjects	....	5%	....
Failed in 5 subjects	2%	2%	....
Failed in whole year	7%	....	....
Left before end of session	12%	2%	....
Granted year on account of overseas service	5%	....	....

Commenting on the above, the Dean makes the following notes:—

"I beg leave to enclose another statistical arrangement which proves very conclusively that the reason why so many students leave in course is because they fail to pass their examinations. It is noticeable, too, that the percentage of students who obtain honours is higher than the percentage who pass in the ordinary

course. Apparently the honour courses in this Faculty do not imply that a student who is graduated with honours has been in any sense a student of superior grade during his years spent in the University."

It is certainly significant that of the 82 men students who entered Arts in September, 1920, only 36 were able to enter their Fourth Year in the Autumn of 1923, and that the number of women students in the same class fell from 63 to 31.

In the Faculty of Applied Science the loss was still more remarkable, for of the 160 Matriculants in Engineering courses, only 64 went on to their Fourth Year.

In Medicine the class of 1926, which had 124 students in the Autumn of 1920, was reduced to 53 by the beginning of their Fourth Year.

Of the Law class of 41 which entered in 1920, only 18 graduated, a loss which in view of the previous training must be considered extraordinary.

Finally, in Dentistry, a class of 50 was reduced to 16.

There is in the results of the examinations of the more recent classes no ground for expecting that the situation will improve, unless we can find some definite method of remedying it. In September, 1923, 343 students entered the Faculty of Arts, and of this number only 131 were able to pass the mid-session examinations in all subjects. Of the 212 who were conditioned, 204 were still conditioned at the end of last term.

If one object of the University is to send out graduates who have been able to pass successfully through four years of training, it is quite obvious that we cannot claim any very large measure of success. It is, moreover, worth noting that in order to cope with the very large classes in the junior years, the University is put to very considerable expense, in increase of staffs and general overhead. In view of the fact that the undergraduate pays only about one-third of the cost of his education, it would appear that the instruction of students who do not pass their examinations is a policy, the business wisdom of which is extremely questionable.

§2

Causes of Wastage

In seeking, as we are bound to seek, for the causes of losses which are certainly lamentable and which should be avoidable, we must endeavour to examine the position fairly and to apportion the responsibility justly to schools, to the individual undergraduate and to the University.

There is very little doubt that our schools are, for very many reasons, unable to reach standards which are desirable in institutions undertaking to prepare students for university courses. It was pointed out in the report of the year 1922-1923 that mathematical training in schools was so elementary that only a negligible number of students ever reached the standard required for Honour Mathematics. The study of Classics is not compulsory in our schools, and, indeed, it is extremely doubtful whether under present conditions it would be effectively carried out. Probably the reason for this lack of attention to cultural subjects is in part that their commercial value is not by any means apparent, but it must be acknowledged that another cause is that the teachers are often hardly sufficiently trained. Indeed, the presents ystem may be traced back to a number of causes, each of which reacts on and increases the effect of the other.

Salaries paid to school teachers are insufficiently high to attract students who have reached, generally after mucu sacrifice the highest academic grades.

The last published report of the Superintendent of Public Instruction showed that the average salary for male teachers was $2,300.00 per annum, which, although almost double that paid in Catholic schools and larger than the average salary in Ontario schools, is scarcely sufficient to attract a University graduate to adopt teaching for his life work. Women receive an average salary of $1,013.00 per annum. On the other hand, those who have taken up, or who have been willing to take up, teaching, have not always possessed qualifications which have entitled them to high remuneration. Our own graduates who have aimed at devoting themselves to teaching, have not always been those who were best fitted to such work, and the youth of the country, undergraduates and

others, have, it is to be feared, regarded the teaching profession either as a stop-gap or as a calling only to be taken up when all else fails. The University cannot, it is true, accept any blame for the fact that the salaries paid to teachers are low, but it can and must assume the responsibility of seeing that those who enter the teaching profession do so with the fullest realization of their responsibility, with the deepest respect for the duties that they are undertaking, and with the best possible cultural training.

There is no doubt whatever that many students come to the University without any very definite aim in their minds. They reach their final year in school, they pass the school-leaving or matriculation examinations, and, finding themselves thus qualified to enter the First Year of the University, register as a matter of course. It would be very gratifying to believe that this is always due to a desire for education, but unfortunately the result of examinations and general observation of undergraduate life prevents us from coming to any such conclusion. Whatever handicap he may be under, by reason of insufficient training or any other cause, the student who is able to enter the First Year should, by exercising even a moderate amount of diligence and common sense be able to obtain at least a pass mark. If he does not do so, he cannot attribute the fault entirely to his school or to the University. The undergraduate who comes to McGill with a definite purpose, can, without excessive study and by a proper arrangement of his time, insure himself of success. But the young men, on the other hand, who come to the University with the vague idea that it is an advanced edition of school and that as long as they hear what the teacher has to say and do their lessons with moderate care, they will get through, have indeed a poor chance of obtaining satisfactory results.

The increase in general in athletics and other student activities, and the growing importance laid upon them is sometimes blamed for unsatisfactory examination results. It would be going too far to say that the facts, so far as they can be ascertained, entirely bear out this statement. The undergraduate of Oxford and Cambridge spends less time in actual study than does the undergraduate of McGill, yet the

standard required by the examinations of those institutions is at least as high as ours. To confine our observations to our own ranks, however, so far as activities other than athletics are concerned, the results of the last session show that the undergraduates who take a leading part in student organizations were as a rule quite successful in their sessional tests.

The question has been studied by the Students' Council and the result, as they found it, is given below:

"Following your request for information regarding the academic standing of students who take part in activities of the University outside of athletics, we have taken the chief executive positions and examined the records of the men who held them during last year. The ones we have chosen are as follows, viz.:

President and members of the Council.
Union House Executive and Committee.
McGill Daily Executive.
Undergraduate Society Presidents.
Canadian Club Executive.
Literary and Debating Society Leaders.
Theatre Night Executive.
Musical Association Executive.

"I am pleased to be able to report that in only two cases were men shown to have failed to complete the year. On the other hand, several of the men whom we investigated obtained honours in their examinations."

So far as athletics are concerned, the Director of the Department of Physical Education has obtained a series of reports which seem to indicate that it is quite possible for a student to take up athletics, so long as his diversions do not mean too great expenditure of time, without of necessity being a failure in his examinations. An extract from his report follows:

"The adoption by the Canadian Intercollegiate Athletic Union two years ago, of a regulation requiring students to be properly qualified academically before being permitted to take part in intercollegiate athletics, has been the cause of much discussion concerning the relation of athletics to academic standing. There have been many cases in the Intercollegiate Union where students have not attained a sufficiently high enough standard to be permitted to take part in athletics, and such cases have led to the belief that

athletics as now conducted interfere with the progress of a student in his academic work. Undue importance is attached to the star athlete who is on the border line academically, and opinions are frequently formed concerning the influence of athletics, on very limited information and insufficient investigation. An endeavour is now being made to get accurate figures from the Faculties in order to study the standing of those students who are prominent in athletics with the standing of the general student body. It is fair to assume from the evidence at present available that those students who are most active in the various types of athletics are on the average better students, academically, than those who are not so active physically. The numerous other qualities which are attained in properly supervised athletics, and which mean so much to the future welfare of the individual, cannot be measured nor tabulated."

In those cases, indeed, in which a student does suffer by reason of his athletic or other activities, we cannot be too insistent in laying the blame altogether on his employments outside of strict study. The fault may lie in part with the arrangements of our own courses, for no course should be so designed as to prevent the student having a reasonable amount of time both for recreation and for the work of his curriculum.

There does not seem to be any reason why an undergraduate should not, by exercising a certain amount of common sense, by making a proper arrangement of his work, by allotting certain hours to study and certain hours to recreation, be able to combine a satisfactory mental training with a fair share in general student activities. Indeed, it would be a great pity if this were not so, for the University, in aiming at the production of good Canadians, must take into account the part men play in their fellows' affairs.

We have, however, by no means finally fixed the blame for any lack of success on the part of the undergraduate, when we apportion some of it to the teacher and some of it to himself. The University cannot escape its share of responsibility.

It is impossible to claim that our system, based as it is upon the lecture and the examination, is a completely desirable one. There are in the first place,

some teachers whose conception of lecturing can never produce very satisfactory results. They attempt to prepare a series of lectures upon a given subject, including in those lectures a complete summary of the knowledge which they think necessary to the student, and they examine him as to his knowledge of the contents of their series of lectures. Reading and study by the undergraduate is for the most part collateral to the lectures. He too often reads and studies only such portions of the literature of his subject as he is told to read, and he reads and studies them with a view entirely to passing his examinations.

The origin of this system of lecture is a little difficult to trace. Perhaps we must look for it in the time when text-books were hard to come by, and the stream of educational literature had not attained its present-day volume. So far, indeed, has the development of the method gone that many outside boards of examiners and conferences insist that a student who is to be considered qualified for a diploma or a degree in any subject, must have to his credit a given number of lecture units. The Quebec Bar, for example, insists upon a fixed number of lectures in each subject. The Association of American Law Schools, to keep to the same profession, places similar obligations upon its member colleges.

It is no wonder that with this system at one of the educational poles, the correspondence school has developed at the other. It is quite true, although it is much to be regretted that the correspondence school student is often more of a student in the true sense of the word than the university undergraduate. The method which makes study collateral to lectures seems to be exactly the reverse of that which should be followed. The primary object of a University training is education, not the passing of examinations. The only method of obtaining education, of becoming fitted to meet with and wrestle with the problems of life is for the student himself to meet with and wrestle with the problems of learning. Lectures should be co-ordinated with other study, instead of study being a more or less unimportant adjunct to lectures. The duty of the lecturer is to guide and to inspire study, not to put into the student's head a given quantity of material upon which to draw for the purpose of

obtaining marks and there is no need whatever for lectures to contain material which is perfectly accessible in just as convenient form in text-books. The lecturer should lead the student through the subject, should elucidate, should illustrate, should endeavour to put life and interest into what might otherwise be uninteresting. Above all, the student must be encouraged to study himself, and must be given time to do so. It cannot be said of all our courses that the undergraduate has no time for work, but it is unfortunately true of some of them, and the fault is one which we must make every effort to correct. It is essential that each teacher of the University should be assured that every student under him has sufficient leisure to give independent attention and thought to his subject.

There is another point which essentially calls for much consideration. The Medical, Law and Dental Faculties require of their matriculants a standard of previous instruction measured by a two-year course in Arts. In view of the fact that the training in schools, especially in such subjects as English, Mathematics and Economics, is, as has already been noted, much less complete than might be wished, it seems that the time has come when the University must at any rate consider the extension of similar requirements in other professional faculties. It may of course be said that a professional degree does not imply any such standard of culture. A little thought, however, cannot but result in the conclusion that this view is one which the University cannot for a moment maintain. Any McGill degree is a hall-mark, and as such should not be set upon a man whose training at the University has been of a purely technical nature; the name of McGill should connote a degree of general culture, obtainable only as the result of a certain amount of purely academic training. So long as the undergraduate in Applied Science, for example, is only allotted four years in which to complete his course, he has assuredly no more than enough time for the purely professional portion of his training; he has certainly not enough time to devote any of it to the general and literary studies. If such studies are to be regarded as essential or even valuable, we are driven to the conclusion that more time must be allotted to the professional courses.

I should like at this point to quote from an article of Dean F. L. Bishop, of the School of Engineering and the School of Mines in the University of Pittsburgh:

"An examination of the records of a number of schools of engineering shows that, at the end of five years, twenty-five per cent. of their engineering graduates are in activities other than engineering; at the end of fifteen years, forty-seven per cent.; and at the end of twenty-five years, fifty-seven per cent. Some institutions run an average above seventy per cent. It is evident that the education of these men is fully as important as their training and that the emphasis should be placed on the subjects which give a broad education.

"In certain of these schools, one out of every two of its graduates is in an executive administrative position. The number of its graduates who are presidents or managers of, or hold important positions with, large corporations is an amazing tribute to the effectiveness of this type of education.

"It is evident, therefore, that engineering schools are required to graduate men of two different types. First, a man who may be called a technician, who is highly trained in science and mathematics, who possesses the instinct of the research man and who has the desire to devote his entire time to highly technical research problems, either in the research laboratories which are now rapidly being developed in the large industries, or by applying the results of his research to engineering science.

"The second type is the man who has a broad general knowledge of engineering subjects and who can apply that knowledge in an effective way to present engineering problems. He must have ability to command men, a knowledge of the applications of economic principles to industries, and a broad training in the so-called humanities, since he is the man in contact with men of other types in other fields of human activities."

Even in the Faculty of Arts the gap between the school-leaving examinations and the point which the student should reach at graduation seems sometimes too great to be satisfactorily breached in four years.

The solution may lie in the introduction of a pre-college year, between matriculation and the first year of an Arts or Science course. It may lie in some re-arrangement of the course as at present laid down. We must make sure at least, in any event, that our degree involves an academic standard as high as that of any other University.

We may, perhaps, sum up the foregoing remarks by saying that so far as concerns purely academic matters, the duty of the University to the undergraduate is not to fill his head with a mixed assortment of knowledge of various subjects, but to teach him how to work. For the young man who has not enough ambition to devote himself to making the most of such guidance, to working upon his own initiative in order to gain an education, there is no real place at a University. The University, on the other hand, is doing less than its duty if it fails to inspire such ambition in the minds of its students, and it should be our aim so to conduct our teaching that at least some of the men who come to McGill without any very definite idea, should, even during their first year, gain a conception of educational methods which will enable them to obtain the greatest benefit from their college course.

II

PROGRESS IN ORGANIZATION OF THE UNIVERSITY

The most important development which took place during the session 1923-24, and, indeed, one of the most important which the University has seen in many years, was the reorganization of the Department of Medicine in the Faculty of Medicine. For many years there has been under consideration the possibility of putting the Department of Medicine on a full-time basis, thus adopting a system which was suggested by the late Sir William Osler. Some of the advantages of such an organization were mentioned in the University Report of the session 1922-23, and it is perhaps unnecessary to recapitulate them here. It might, however, be repeated that the objects aimed at are: first, the treatment of patients in a University clinic by a physician of the highest skill who joins in himself the head of the University Department of Medicine and of the medical service of the hospital. This reorganization aims, secondly, at the thorough teaching of medicine in a manner parallel to that used in dealing with such subjects as Anatomy and Physiology. Thirdly, it is directed towards the provision of adequate facilities for research. It must always be borne in mind that the contrast between the full and part-time teacher of Medicine, is not that one is a theoretical and one a practical instructor, but that the full-time teacher is one whose whole work is with patients in hospitals. From the teaching point of view, the hospital parallels the laboratory, the patients parallel the material.

The completion of the arrangements for the introduction of this system during the session 1924-25 was due to the generous co-operation of the Governors of the Royal Victoria Hospital and to the broad-minded inspiring and open-handed assistance of the Rockefeller Foundation. As a result there will be established in the Royal Victoria Hospital a University clinic, organized on lines which the Rockefeller Foundation, the Hospital and the University have agreed upon as the most satisfactory.

The director of the clinic will be the chief medical officer of the Royal Victoria Hospital, the Professor of Medicine in McGill University and Chairman of the Department of Medicine. He will devote his entire time to the treatment of patients in the Hospital, to teaching and research, and as the head of the clinic will be the chief medical officer of the Hospital. He will have at his disposal such teaching beds as he requires and will also control of the out-patient department.

The staff, in addition to the head, will be composed in part of men who will give their entire time to the work, and in part of men who also engage in private practice, and no man will be appointed to the medical staff of the clinic whose name does not carry with it the recommendation, sanction and approval of the Boards of Governors of the University and of the Royal Victoria Hospital.

The Royal Victoria Hospital will give space for the reorganized laboratory, equip this laboratory and maintain the equipment up to the standard which may be agreed to by the director and the Hospital.

The staff of the new Department will be as follows:

One director and professor.
Three or four full-time assistants.
Two senior part-time teachers.
Ten junior part-time assistants and teachers with a full staff of nurses technicions, etc.

The head of the clinic will be the head of the Department of Medicine of McGill University, that is, he will organize, supervise, direct and control teaching and research wherever teaching is done by the McGill Medical School. It is the intention to continue to use the Montreal General Hospital to the fullest possible extent. Those who teach there will be on a part-time basis, but, of course, not constituting any of the personnel on a part-time basis in the clinic established at the Royal Victoria Hospital. The head of the Department of Medicine at the Montreal General Hospital will hold the rank of Professor of Medicine and will have a seat on the Faculty.

The expense of an organization such as this will, of course, be considerable, and it would have been quite impossible for the University to meet the cost from its

own resources. Assistance was, however, forthcoming. The Royal Victoria Hospital, in addition to the sums already expended on their department of Medicine, appropriated $15,000.00 per annum to help in covering the additional expenditure. The balance of the cost is to come from the income of an endowment of $500,000.00 which, after full consideration of the proposed plan by its Division of Medical Education, was presented to the University by the Rockefeller Foundation.

It was with great gratitude that the University accepted the help so generously given, the hearty cooperation of the Hospital authorities, and the devotion and interest of those members of the staff and friends of the University who contributed their utmost to bring our plans to successful fruition.

Another change made in the Faculty of Medicine, while not involving any such large questions and important matters of policy, is yet of very considerable value. The Medical Faculty has for some years possessed a department of Experimental Medicine, which has for the most part been occupied in the study of surgical problems, the work being conducted by surgeons. This department has this year been completely reorganized and has been placed under the charge of the Professor of Physiology, who has been given five junior assistants, to enable him to deal with it, the work to be carried on both in the Laboratory and in the Hospital.

Another most important advance was marked by the final completion of the Pathological Institute, with its equipment. This building was taken over during the last session and on its formal opening, on October 6th, by one of our own graduates, the Honourable N. Perodeau, the Lieutenant-Governor of the Province of Quebec, becomes one of our most notable accessions.

In the Faculty of Applied Science it was found possible to take another step forward and provide for the extension of the Department of Electrical Engineering, foreshadowed in last year's report. It became evident as a result of investigations made last winter, that while in other branches of Engineering there is no increase in the demand for young engineers, Communication Engineering has a demand greater than

the supply. It is possibly due to the fact that in this branch engineers have so far received a somewhat insufficient University training that the remuneration has been less than might be hoped, but a considerable change for the better is becoming evidenced.

The Department of National Defence has assumed the responsibility of a great deal of wireless communication, especially in the West, and it requires a fairly constant number of Engineering graduates for this service. In this connection it is interesting to note that preference is to be given to graduates holding C.O.T.C. certificates. The great power companies are installing their own communication systems, and there is a constant increase in telephone equipment throughout the Dominion.

After much consideration had been given to the matter, it was decided to add a new wing to the Engineering Building, upon the foundations previously serving as walls for the foundry and smithy, the additional floor space available, to be about 11,000 square feet,and to permit of the complete rearrangement of the Electrical Laboratories. The department will, by this arrangement, be enabled not only to institute the courses in Communication and Telephone Engineering already referred to, but also to give instruction in Electrical Measurement in its own laboratories. In addition to this, the standardization equipment, valued at many thousands of dollars, which it has been impossible to use efficiently because of lack of space, will be operated to the fullest advantage.

While there is no further progress in the building programme of the University, it should perhaps be said that the reason for constructing the Engineering wing prior to those buildings which were mentioned before it in last year's report, was that it was possible to carry out the work at a comparatively small cost, and that the University was fortunate enough, through the kind offices of some of its friends, to meet the expense without any serious inroad on the funds already in its possession or in view. Any other items of work of which there is immediate and pressing need, such as the remodelling of the Arts Building, the erection of a new Mining and Geology Building and the

construction of a gymnasium, would have involved the expenditure of a much larger sum than was available in this instance.

Through the generosity of an anonymous friend the University has been put in possesion of a most convenient building as a club for the staff. The Faculty Club serving as it does the need of a University Common Room, has proved a most useful and pleasant meeting place.

We must not leave the subject of new buildings without mentioning the munificent gift of Lady Roddick, who has presented the University with a new Entrance Gate and Clock as a memorial to her husband, the late Sir Thomas G. Roddick, for so many years a member of the McGill staff, and long Dean of the Faculty of Medicine.

It is fitting that this survey be closed with a brief recapitulation of the present status of the Centennial Fund:

STATEMENT OF McGILL UNIVERSITY CENTENNIAL ENDOWMENT CAMPAIGN
November 15th-20th, 1920 To 31st August, 1924

Total Amount Subscribed to Campaign			$6,444,905.21
Less—Cash Subscriptions, Exchange and Interest			277,531.47
			$6,167,373.74
Less—Cancellations to January 31st, 1924			5,866.84
Net Pledges			$6,161,506.90
Received since Campaign on account of pledges:			
	Cash	Securities	
To 31st August, 1924	$3,322,953.66	$2,033,514.67	
			5,356,468.33
			$ 805,038.57
Amount pledged for 1921		$1,604,116.75	
Province of Quebec subscription		1,000,000.00	
Rockefeller Foundation subscription		1,000,000.00	
		$3,604,116.75	
Amount received to 31st August, 1924	$3,558,067.12		
Cancellations	5,866.84		
		3,563,933.96	
1921 Balance		$ 40,182.79	
1922 subscriptions	$ 756,363.00		
Amount received	718,416.95		
1922 Balance		37,946.05	
1923 subscriptions	$ 661,563.65		
Amount received	593,101.03		
1923 Balance		68,462.62	
1924 subscriptions	$ 562,463.04		
Amount received	470,646.14		
1924 Balance		91,816.90	
1925 Subscriptions	$ 590,582.71		
Amount received	23,952.50		
1925 Balance		566,630.21	
			$ 805,038.57

It is not going too far to say that the year just passed has been one in which much real progress has been made and more has become visible before us. The friends of the University may be assured that we will put forward every effort to make the most of the new facilities at our disposal, of every improvement in organization, and will endeavour to use each new advance as a step to still higher things.

III

UNIVERSITY ACTIVITIES

§1

Research

A considerable amount of interesting and important research work was carried out during the session.

At Macdonald College there were 28 graduate students, of whom 12 received degrees at the last Convocation, and research work was carried out in every department. Considerable attention was devoted to cultural study with grain and root crops. The College has been successful in introducing new varieties of oats and wheat, which have proved very valuable. In oats, for example, the Banner 44 M.C. of Macdonald College has produced more by 5 to 7 per cent. than its parent variety. In the Department of Botany important work was done in various plant diseases, and in the Department of Chemistry the work of Soil Acidity, undertaken under a special grant from the Honorary Advisory Council for Scientific and Industrial Research, was completed and reported. Investigations were also carried on by the Departments of Horticulture and Poultry Husbandry, and special mention should be made of the Flock Culling work, carried on during the past two years by Mr. C. E. Lampman. This work has proved to be a valuable element in the production of a higher grade of laying stock and, carried out as it has been with the poultry service of the Quebec Department of Agriculture, has been of the most wide-spread benefit. Another interesting research was done in the case of a disease, similar to Tetanus, which caused the loss of a large number of cattle on one farm in Quebec. The organism from which the disease originated was successfully isolated and a detailed report will be published in the Journal of the American Veterinary Association.

In the Department of Mining, the most important investigations were:

1. The flotation of Eustis Mine ore.
2. Flotation vs. Cyanidation of the Hollinger ore.
3. The settlement of slimes with coagulents.
4. A comparison of a considerable number of anthracite coals obtained under market conditions from Montreal dealers.

In Metallurgical Engineering Mr. W. V. Faith made a research into the constitution of nickle-copper mattes, which was suggested by the management of the British American Nickel Refinery and Mr. C. R. Whittemore made a technical research for a Montreal firm.

Dr. Stansfield gave two lectures on Electric Iron and Steel Making before the Carnegie Institute of Technology and opened a discussion on Electric Furnace Refractories at the Philadelphia meeting of the American Electro-Chemical Society.

In the Department of Botany some work has been done in the field of Cellular Physiology, and further work is still going on.

In the Department of Zoology the Philip Carpenter Fellowship was awarded to Mrs. Kathleen F. Pinhey, M.Sc., who has been studying the marine plankton or floating organisms which form the basic food-supply of fishes and whose distribution affords an index to the currents prevailing off the coast. The material under examination is from the Straits of Belle Isle, and it is to be followed round the coast of Newfoundland.

In the Department of Physics Dr. A. N. Shaw has done further work on hydrometric instruments, and Mr. R. J. Clark continued observations on the ageing and temperature coefficient of Weston cells. Dr. D. A. Keys has continued his investigations on piezo-electricity, with particular attention as to the effect being isothermal or adiabatic. Dr. E. S. Bieler has recently published, in the "Proceedings of the Royal Society of London," the results of an investigation on the character of the field near the nucleus within the atom, using the alpha-particles of radium for exploration.

In the Department of Civil Engineering investigations were made: "Net Section of Rivetted Tension Members" by L. S. McLennan, B.Sc., and "Bond Stresses in I-Beams Haunched with Concrete," by J. S. Trueman, B.Sc.

§2

The Curriculum

The most important change in the curriculum during the last year was the abolition of the LL.B. course, and in view of the wide-spread interest being given to the question, and the many points involved, it seems worth while to quote very fully from the report of the Faculty of Law concerning its degrees and curriculum, laid before Corporation towards the close of the last session.

The B.C.L. Degree

"The chief aim and duty of the McGill Faculty of Law is the efficient and scholarly training of law students in the existing law of the Province of Quebec. This has always been the recognized aim and duty of the Faculty and no departure from the principle was intended when, a few years ago—to be more definite, in 1919-1920—the Faculty began to offer separate courses of study in subjects peculiar to English law to students attending the McGill Law School and intending to practice law in the purely English-speaking provinces of Canada and elsewhere. Any impression that the paramount claims of students engaged in the study of Quebec law were in any way prejudiced or neglected by this experiment is, in the opinion of the Faculty, quite unfounded. On the contrary, the number of hours of instruction devoted to the study of the existing law of the Province of Quebec has, in the meantime, been substantially increased. Library facilities have been distinctly improved and the number of students using the library has been multiplied. No students registered on the civil side have attended any lectures or instruction in English law, while all students on the English side have regularly attended the usual lectures on all subjects common to both systems given under the regular instructors trained in the law of this Province. In other words, the existing civil law of the Province of Quebec has

always been recognized by the Faculty as the base and foundation of its work. Law schools founded upon the study of civil law and leading later to the more special study of English law have long existed at Oxford and Cambridge, and no doubt the originators of the experiment mentioned above justly felt that McGill offered promising ground for a similar school devoted to the study of all-Canadian law.

The LL.B. Course

"The number of students registered for this course has all along been distinctly disappointing. This result is doubtless due to a complication of causes. The signers of the majority report stress the fact that the common law is not practiced in the courts of the Province of Quebec, and that the resulting absence of a common law atmosphere in the courts and law offices of Montreal presents a very great initial obstacle in the way of founding a school of Common Law at McGill, with any possibility of serious ultimate success. The signers of the minority report, on their part, think that the difference in teaching content between the two systems of law in Canada is very much over-emphasized, and they point to the admittedly great success of the law schools at Oxford, Cambridge, Harvard, Columbia and other universities, where the law student is in no way affiliated with the local courts or offices during the three sessions devoted exclusively to the study of law at the university. There are, however, two cogent difficulties fully recognized by all parties interested, viz.: (1) insufficient funds at present at the disposal of the McGill Law School, and (2) the practice which obtains in all the provinces of Canada by which students-at-law, before being admitted to practice are compelled by the authorities of the local bar to serve a period of at least nominal apprenticeship in a local law office and attend lectures in a local law school. In the Province of Ontario, for example, all students, before being allowed to practice in the province, are compelled to serve under articles of apprenticeship in a Toronto office and attend lectures at Osgoode Hall for a period of three years. This last difficulty is clearly insurmountable at present by any action open to McGill. After carefully considering all these

difficulties, the members of the committee unanimously recommended that the LL.B. course be discontinued and that no new students be registered for this degree after the close of the present session. The members of the Faculty have unanimously approved this recommendation. The members of the Faculty wish to add that while recognizing that this recommendation will render it unnecessary to have a professor devoting his whole time to common law teaching, they, nevertheless, deem it desirable for the present at least that one member of the full-time staff should be a recognized specialist, trained in English law, competent to give instruction in some of the subjects common to both systems and especially in comparative law.

The Enlargement of the Curriculum

"It has been suggested that the present curriculum leading to the degree of B.C.L. is unduly rigid and technical and that it offers no adequate opportunities for intending practitioners who wish to take fuller advantage of their years spent at the University to enlarge their educational outlook, or for those students who do not intend to practice law at all, but who desire, nevertheless, to follow a course of study in law for the purpose of equipping themselves for public service or for purely educational reasons. It is, therefore, suggested that additional and more advanced teaching should be offered in such quasi-legal subjects as constitutional law, comparative constitutional law and international law, and that optional facilities should be given to students in the law school to elect these advanced subjects should they so desire. It is also suggested that these subjects be offered as elective studies in the Faculty of Arts, and that intending law students in that faculty be encouraged to complete these studies before beginning the more strictly professional work of the law school. Indeed, the Faculty wishes to put itself on record as being in favour, without qualification, of the closest possible affiliation between the Faculty of Arts and the Faculty of Law at McGill designed to encourage intending members of the legal profession to enlarge their university education before being admitted to practice.

Academic Study and Office Attendance

"This question has been seriously considered in all the provinces for years past without arriving at any very satisfactory final solution. It is admitted that there are some factors in the education of a lawyer which the university can do better than the offices, and that there are other factors which the offices can do better than the university. An adequate training, for example, in the more fundamental, comprehensive, scholarly subjects in the law, as in all the professions, can be best acquired in a university, and an adequate technical training in local statutes, practice and business routine in the office. The real question, however, is how the student shall be required or allowed to divide his time between the university and the office. Shall he be required to attend both the university and the office concurrently, devoting a part of the working day to each, or shall he be allowed to devote the whole of the time spent in the university to his university studies and, in addition, be required to devote at least one year to continuous, intensive office practice before being permitted to practice on his own account? This problem is made all the more difficult by the great variety of ways in which the student-clerk is treated in the different offices. In some offices he is welcomed and receives valuable training and assistance in his studies, while in others he is either not welcomed at all or is allowed to attend in a merely nominal desultory fashion. The chief difficulty on this point, however, springs from the fact that under the present state of the law in this province the student is compelled to serve three years in a law office before being admitted to practice, and is, therefore, virtually compelled to attend the university and the office concurrently. Under these circumstances the university has no option but to respect the law as it actually exists and is, therefore, powerless to make any change until the law is amended. The members of the Faculty, therefore, recommend on this point that negotiations be undertaken with the other law schools in the province for the purpose of finding a formula which may be satisfactory to all parties interested and which may meet with the approval of the General Council of the Bar of the Province and the Legislature."

Considerable thought has been given to one question briefly referred to in the foregoing report, namely the conflict between the requirements of academic study and office attendance. In theory the student is obtaining his training in substantive law at the University and completing his legal education by practical work in a law office, carried on concurrently with his university studies. The result of this method of training cannot be said to be altogether satisfactory. From the point of view of the university the student who is called upon to spend his working days in an office cannot get his fair share of academic life, or reach that thorough training in legal principles which the university would like to give him. His time at the office is so broken up by the calls which the university makes upon him, that he can scarcely ever give that consecutive attention to any one matter without which he is gaining little good.

A proposal has been recently put forward by some of those interested in legal education, that the study of law should consist of three complete years at the university and one complete year in an office. Whether this solution will be finally accepted or not it is too early to say, but it does not seem that any hardship would be worked by the lengthened course. A student possessed of a B.C.L. degree, and able to devote his entire time to office work, would probably be just as useful to the firm in which he works as a young lawyer in his first year of practice, and there is no reason why he should not expect an equal remuneration. The Faculty of Law would become more assimilated to the University as a whole and would be able to give legal instruction in a manner which would not fail to be satisfactory. Indeed, it seems that most of the difficulties raised in the report of the Law Faculty would be avoided in the adoption of the new proposal.

In the School of Commerce the four-year course operated for the first time and one innovation which thus became possible was the work in Investigation Practice, in which every member of a class is called upon to make individual research and to prepare solutions for problems of a practical nature.

Another course which has been newly instituted is that of Actuarial Science. This course has been

devised in co-operation with members of the Institute of Actuaries, and will enable the student who follows it to become an associate of the Institute, after a year's work in a life office.

In the Faculty of Medicine changes have been made in the entrance requirements, involving two years' study in the Faculty of Arts, prior to Matriculation in the Faculty of Medicine. During these two years the student is required to complete his pre-medical work in Biology, Physics and Inorganic and Organic Chemistry. The course in the Faculty of Medicine has been definitely fixed at five years, and the curriculum more accurately defined. It has also been decided that, during the month of April, there will be a special intensive course for graduates, given chiefly in clinical subjects and so arranged as to present the most modern advances in modern knowledge. Coincidently with this course, Honour students in Medicine will be allowed certain options, providing both teachers and students a little latitude for instruction at the end of the course.

§3

Extension Courses and University Lectures

Among the most important activities of the University, at any rate so far as their effect on the outside world are concerned, are those carried on by the Committee on Extension Courses and University Lectures, whose work consists in the provision of lectures for non-members of the University.

There are, in the first place, the courses of lectures of a strictly academic nature, in which the instruction given is similar to that provided for University graduates and for which academic credit is given. In the second place, there are courses given for definite groups drawn from certain businesses or professions. The University has adopted the principle that in such courses as this no attempt will be made to teach the technique of the business in which the students are engaged. It is felt that such work can be done far better by the institutions where they are serving. There is, however, no doubt that a service can be rendered in giving a considerable amount of inform-

ation regarding, and guidance in, the study of other subjects which are of importance to them in the practice of their profession.

In conformity with this principle a course was last year given for insurance agents, which dealt with such subjects as Economics, Accounting, English and Psychology. These were combined with instruction in salesmanship and life insurance, given by members of the insurance profession. This course, which was attended by about 75 agents, was made possible by the hearty co-operation of many members of the insurance world, and the thanks of the University are especially due to Mr. G. H. Harris of the Sun Life Assurance Co., who took a most active part in its organization and execution.

A similar course of lectures was given under the auspices of the School of Social Workers. Several well-known authors and men interested in social problems addressed the students, also making, wherever possible, a survey of institutions and giving in many cases most valuable advice.

A third type of lecture provided was designed for the general public. The lectures given by Count Albert Apponyi, by Professor William McDougall, by Mr. Bliss Carman and by Mr. George Trevelyan were attended by interested audiences. Finally, Dr. Silberstein, the chief physicist of the Eastman Kodak Company, gave three lectures on a new theory on distant stellar and nebular bodies.

Another kind of course provided was that mentioned in last year's report, given for the benefit of limited undergraduates, who are obtaining degrees as the result of part-time attendance over a number of years. These courses, given in co-operation with the Teachers' Association, were well attended, and it is hoped that the University will be able to give real assistance to those who are patient and persevering enough to pursue the instruction. Lastly, there were given public courses requiring considerable academic attainment, but not of necessity carrying academic credit. Details of those are given in various departmental reports.

The work of the French Summer School, while not carried on under the auspices of the Extension Com-

mittee, is one on which too great importance cannot be laid. The school was this year attended by about 135 students, drawn from all parts of Canada and the United States. The Royal Victoria College and the Hostel of the Montreal School of Physical Education, with such other buildings as could be obtained, were converted into French residences, and the students surrounded by a thoroughly French atmosphere. To carry on the necessary work for this school, the staff of the Department of Romance Languages is implemented by a number of French teachers, no one but those whose mother tongue is French being selected. The School is doing a most valuable work in promoting not only a knowledge of French but also a knowledge of Canadian conditions, and its continued success is very gratifying.

IV

PROSPECTS

It is satisfactory to have been able to record a reasonable amount of progress in the various directions indicated in last year's report.

We have already noted that the Faculty of Medicine has instituted its full-time organization in clinical medicine, and there is now in operation a University clinic. The Faculty of Applied Science is in possession of new premises, and the courses in Electrical, Mechanical and Hydraulic Engineering will all be benefited in consequence. The Faculty of Law has decided on the Civil Law method and we hear of steps being taken by members of the Bar which will enable the Law student to spend a much greater part of his time learning substantive law at the University. If the other buildings of which we are yet in urgent need are not on our immediate programme, there is no cause for despair. A remodelled Arts building, a building for Geology and Mining, and a Gymnasium must be provided, and our experience of past years has given us confidence that the need will be met.

The change in the methods of the Department of Medicine is one which shows very clearly the nature of the development towards which we hope we are moving. The ideal of the University in its professional faculties is to instil a thorough knowledge of the basic principles underlying the subjects taught, to give technical skill only to supplement and illustrate these principles. Too much emphasis cannot be laid on the order of importance; mere craftsmanship without knowledge is no qualification for a University degree.

There is a growing feeling that the technical training in the Faculty of Applied Science should provide a thorough grounding in essential engineering subjects, combined with increased facilities for purely academic and cultural instruction. Employers of young engineers are more and more in search of men who have a very thorough knowledge of mathematics, drafting and other similar studies of what might be called a pre-engineering nature, who can write good

English and can handle men. This must not, of course, be taken to mean that the University can afford to neglect more advanced technical instruction, but this instruction must be rather directed toward giving the undergraduate a complete preparation to enter certain branches of the profession than to giving him a general but rather incomplete knowledge of any one branch. Technical laboratories must always be necessary, not only in order to give the undergraduate this preliminary knowledge of what are after all the tools of his trade, but that the University may fulfil another of its important duties, that of research, and it is very largely with this in view that the future extensions of our laboratories will be carried out.

Another question of considerable importance is the adjustment of the course in Applied Science, with a view to giving more time to general cultural instruction, especially in such subjects as Economics and English. It has already been noted that snch a chage may well involve the addition of a pre-engineering year.

In this connection it seems worth while to mention that admission to higher grades in the University in recognition of higher matriculation examinations or higher school-leaving certificates is not consistent with our general policy, and can never be anything but very exceptional. The object of requiring a student to spend a certain time at an institution of learning, is not to enable him to pass examinations, it is to instil into his mind the culture of the University. Oxford, Cambridge and London are quite willing to accept our Bachelor's degrees as the equivalent of their own, when admission to advanced studies is asked for, but when the matriculant is aiming at a primary degree, they only excuse him one year of residence, as in the case of Oxford and Cambridge, or excuse him the Matriculation examination, as in the case of London. If we require a pre-college year in the Faculty of Applied Science, it will not only be to give the student the opportunity of more learning, but to ensure that he obtains it either here or at least at a college or university, not at a school.

In the Faculty of Arts we hope that the teaching of Government and administrative methods foreshadowed in last year's report will shortly become a

reality. There is no doubt that in State service a great and ever-increasing field lies before the University graduate, and that neglect of this field in the past has led to appalling consequences. The present situation is the result of haphazard thought and political expediency. Our civil service was built up as it was required; jobs were made for men of little training, men were found for jobs which no one understood very clearly. A certain number of positions, of course, came into existence which called for men of high professional skill, and there is no doubt that the Professional Institute of the Civil Service contains in its ranks many men who are a great credit to the professions to which they belong. As a general rule, however, the conditions of service have always militated against efficiency.

The whole congeries of material, for it cannot even to-day be called a homogeneous whole, was crystallised and fixed by the appointment of a Civil Service Commission, and later of a firm of efficiency experts, acquainted much more largely with business questions than with governmental problems. As a result the civil servant is part of a more or less soulless machine. He has comparatively little future before him. He may work with the greatest devotion and loyalty, but his work is too often unrecognized. He may lay down a wise policy, or make a valuable suggestion, but a political chief may never understand its importance.

The events of the past few years have shown us very clearly that in our State service we have too few educated and able men, and that the importance to the country of those we have is far underestimated.

A young country, needing all our available funds for development, we have saddled ourselves with an incredible burden of debt. To set Canada again on the path of progress and prosperity we need an organization far superior to that which was needed when the work was small and comparatively easy. To form such an organization we need men, and men of the most highly educated type, men who cannot be found except among university graduates. The members of a Cabinet are, it is true, responsible for the conduct of the nation's affairs, but their departments require the services of highly trained experts

in order to function efficiently. No general would think of directing an army without staff officers; he would never have time for the thousand technical details nor for the direction of those services which must be carried on continuously. It is for him to point out the result to be obtained, to direct and to control. It is for his staff to correlate and co-ordinate the necessary work, to combine it with the services of supply, communication and all such necessary adjuncts, so that the entire operation will proceed smoothly and successfully.

It was long ago found out in Great Britain that a most important essential to the success of a democratic government, involving as it does frequent changes of control, was a highly qualified and highly organized permanent political staff. The man who wishes to enter the service of the State in England, in the upper grade of what is known as class A of the Civil Service, must pass an examination requiring not only the possession of a university degree, but a very high standard of learning. It is, for example, a well-known fact that the best linguists among Englishmen are, as a rule, to be found in the diplomatic service, that among the most highly qualified scientists are those employed in various government departments, that the senior members of the permanent staff of the Foreign Office are men who have a long and thorough acquaintance with the course of world politics.

It would be quite impossible for any Minister, elected and appointed according to our present method, to carry on without the information and assistance which such a staff is able to give him. The fact that the responsible member of the Cabinet has obtained the confidence of his countrymen is warrant that he may be trusted to give wise consideration to matters that come before him and to render decisions in accord with the policies of his government. He cannot, however, give such consideration without being made acquainted with all the facts at issue, and without the fullest possible appreciation of the bearing of one question upon another. It is to furnish him with these requisites that the permanent staff of his department exists. With the tremendous development of Canada, with the still greater developments for which we must look in the future, has come the

necessity for a Government Service such as can efficiently fill our needs, and such a service can only be supplied by those who have a thorough university training, directed toward the career which they have selected. In the future development of the University it will be necessary to make the fullest provision for the training of men for the service of the State.

In the strictly scientific branches of the Civil Service the University has already supplied many whose work for the country has been of the utmost value. We hope that it will be the part of the Faculty of Arts to furnish for the political staff of the Dominion and the provinces, men who will play a real part in the progress of the country.

The duty of the University as regards the provision of skilled staff for departments of the State, is only a specialized form of its duty to the country at large. No University should be merely a place where the undergraduate obtains a certain modicum of learning. No undergraduate should leave our doors without the realization that he is a member of a community, that he has some responsibilities to others than himself. The undergraduate who realizes that the University is itself a state in miniature, who takes the greatest possible advantages of the opportunities for team-work, will in his after life reap the greatest advantages from his training, and will be of the greatest value to his fellows.

There are in this respect two very different types of institution lying, as it were, at the end of a very long scale of colleges and universities, each of which tends more or less towards one or other extreme. On the one hand we have Oxford and Cambridge, where the individual is almost completely subordinated to his college and to his university. Dons and undergraduates form a completely homogeneous whole. The undergraduate's actions, his words, even his thoughts are very largely governed by a very clearly developed public feeling as to what should or should not be done. The "slacker" in his work is not highly regarded, the "slacker" in undergraduate activities does not exist, the student who fails to live up to the traditions of his college and serve it in the best way possible is "ragged" or ostracized. A man is judged far less by what he knows than by what he is. It may be that such a

system goes too far in one direction, that the tyranny of what are in reality class customs is excessive, that the undergraduate tends to conform too much to one pattern, but at least theman who completes his course is one who has had contact with his fellows, has learned to deal with men and to serve his country. At the opposite end of our scale we find institutions which are "knowledge factories" constructed on a colossal scale, where "individual liberty" and "academic freedom" have become nothing more than much-abused catch-words.

If there is one aim that McGill cherishes more than any other, if there is one object which has been constantly before her eyes, it is that she may serve the country to the best of her power. If we are to succeed in this, every member of the University, teacher and undergraduate alike, must share in a greater purpose than the production of skilled individuals; we must keep in view and ever strive towards the high ideals of national duty.

A. W. CURRIE,

Principal.

APPENDIX I

REGISTRAR'S REPORT

The enrolment for the session 1923-24 was as follows:—

	1st Year	2nd Year	3rd Year	4th Year	Partials	Total
ARTS:—						
Alberta—Men	..	..	1	1	..	2
—Women	..	1	..	..	..	1
British Columbia—Men	1	1	2	1	..	5
—Women	2	..	1	2	..	5
Manitoba	1	..	..	..	..	1
New Brunswick—Men	5	..	3	..	1	9
—Women	2	1	1	..	..	4
Nova Scotia	1	1	..	..	1	3
Ontario—Men	23	5	17	3	4	52
—Women	4	8	4	2	1	19
Prince Edward Island—Men	..	3	1	..	..	4
Women	1	1	4	..	..	6
Quebec—Men	140	72	26	31	45	314
—Women	77	39	37	31	58	242
Saskatchewan	..	..	..	1	..	1
British Guiana	..	1	..	..	..	1
British West Indies	4	3	1	2	1	11
England	1	..	..	1	1	3
Ireland	1	1	..	..	..	2
Newfoundland	3	1	2	1	4	11
United States—Men	14	1	2	..	1	18
—Women	2	..	..	..	3	5
Total—Men	194	89	55	41	58	437
—Women	88	50	47	35	62	282
	282	139	102	76	120	719

	1st Year	2nd Year	3rd Year	Partials	Total
COMMERCE:—					
Alberta—Men	1	..	..	..	1
—Women	..	1	..	..	1
British Columbia—Men	2	2	4	..	8
—Women	1	..	..	..	1
Manitoba	..	1	..	..	1
New Brunswick	1	4	1	..	6
Nova Scotia	5	2	1	1	9
Ontario—Men	17	22	12	3	54
—Women	..	1	1	..	2
Quebec—Men	42	28	19	11	100
—Women	6	..	..	..	6
Saskatchewan	..	1	..	..	1
British West Indies	1	..	1	..	2
England	2	1	..	..	3
Newfoundland	..	..	1	..	1
Turkey	..	..	1	..	1
United States	4	2	1	..	7
Wales	..	..	1	..	1
Total—Men	75	63	42	15	195
—Women	7	2	1	0	10
	82	65	43	15	205

	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total
APPLIED SCIENCE:—						
Alberta	1	1	..	1	..	3
British Columbia	5	5	7	6	..	23
Manitoba	1	..	2	1	..	4
New Brunswick	2	1	3	2	1	9
Nova Scotia	3	1	6	11	1	22
Ontario	25	16	19	27	1	88
Prince Edward Island	..	..	..	1	..	1
Quebec	82	66	54	76	1	279
Saskatchewan	..	2	1	1	..	4
British West Indies	5	1	1	1	..	8
China	..	1	..	..	..	1
Cuba	..	..	1	..	..	1
England	..	2	2	..	1	5
Gautemala	1	..	..	..	..	1
Newfoundland	1	1	4	2	..	8
Palestine	..	..	1	..	..	1
United States	3	2	2	..	..	7
Total (Men)	129	99	103	129	5	465

	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total
MEDICINE:—						
Alberta—Men	1	..	1	1	27	30
—Women	..	..	1	1	2	4
British Columbia—Men	2	3	7	7	19	38
—Women	..	..	..	1	..	1
Manitoba	..	1	2	2	3	8
New Brunswick	4	8	11	2	17	42
Nova Scotia—Men	..	2	5	4	24	35
—Women	..	..	..	1	..	1
Ontario—Men	8	11	26	22	52	119
—Women	1	..	..	..	..	1
Prince Edward Island	1	4	2	7	8	22
Quebec—Men	21	46	40	27	84	218
—Women	..	3	2	1	..	6
Saskatchewan	..	..	7	1	8	16
British West Indies	4	4	9	1	5	23
England	..	1	..	..	2	3
Guatemala	..	..	..	1	..	1
Italy	..	..	..	1	..	1
Newfoundland	1	2	1	5	1	10
Poland	1	..	..	..	..	1
Porto Rico	..	..	..	..	1	1
Scotland	..	1	..	..	..	1
Serbia	..	1	..	..	..	1
United States—Men	5	22	15	10	16	68
—Women	1	..	..	..	..	1
Total—Men	48	106	126	91	267	638
—Women	2	3	3	4	2	14
	50	109	129	95	269	652

PHARMACY:—	
Nova Scotia—Men	1
Quebec—Men	48
—Women	1
British West Indies—Men	1
United States—Men	1
Total—Men	51
—Women	1
	52

	1st Year	2nd Year	3rd Year	Partials	Total
LAW:—					
Alberta	..	1	..	..	1
New Brunswick	1	..	..	..	1
Nova Scotia	..	..	1	..	1
Ontario	2	1	1	1	5
Quebec—Men	26	12	23	1	62
—Women	..	..	1	1	2
Galicia	1	..	..	..	1
United States	1	..	2	..	3
Total—Men	31	14	27	2	74
—Women	0	0	1	1	2
	31	14	28	3	76

	1st Year	2nd Year	3rd Year	4th Year	Partials	Total
AGRICULTURE:—						
New Brunswick	..	..	..	1	..	1
Nova Scotia	..	..	2	..	2	4
Ontario	..	1	2	1	26	30
Prince Edward Island	..	..	..	..	1	1
Quebec	5	9	8	3	234	259
British Guiana	..	..	..	1	..	1
British West Indies	..	..	2	1	..	3
England	..	1	..	..	1	2
United States of America	..	1	1	..	1	3
Total	5	12	15	7	265	304

	1st Year	2nd Year	3rd Year	4th Year	Total
DENTISTRY:—					
Alberta	..	..	3	..	3
British Columbia	..	..	2	..	2
New Brunswick	2	1	5	3	11
Nova Scotia	..	5	1	..	6
Ontario	2	5	5	2	14
Prince Edward Island	1	..	1	..	2
Quebec—Men	25	18	23	15	81
—Women	..	1	..	..	1
Saskatchewan	1	..	4	..	5
British West Indies	..	..	1	..	1
Newfoundland	..	..	1	..	1
United States	2	3	..	1	6
Total—Men	33	32	46	21	132
—Women	0	1	0	0	1
	33	33	46	21	133

	Regular Students	Senior Partials	Total
MUSIC:—			
British Columbia—Women	1	..	1
Ontario—Women	..	2	2
Quebec—Men	3	11	14
—Women	12	54	66
United States—Men	..	1	1
—Women	1	..	1
Total—Men	3	12	15
—Women	14	56	70
	17	68	85

Household Science:—	1st Year	2nd Year	3rd Year	4th Year	Partials	Total
Alberta	1	..	..	..	..	1
British Columbia	2	..	1	..	1	4
New Brunswick	1	1	..	..	1	3
Nova Scotia	1	3	..	1	..	5
Ontario	22	8	2	1	10	43
Prince Edward Island	..	1	..	..	1	2
Quebec	20	2	3	2	18	45
Ireland	1	..	..	..	..	1
Newfoundland	..	..	..	..	1	1
United States	2	..	..	..	..	2
Total (Women)	50	15	6	4	32	107

Social Workers:—	
Manitoba	1
Ontario	3
Quebec	20
England	1
United States	1
Total (Women)	26

Graduate Nurses:—	
British Columbia	2
Manitoba	2
Nova Scotia	2
Ontario	10
Prince Edward Island	2
Quebec	27
Saskatchewan	1
United States	2
Total (Women)	48

Physical Education:—	1st Year	2nd Year	Partials	Total
Alberta—Women	1	..	..	1
British Columbia—Women	1	2	..	3
New Brunswick—Women	..	1	..	1
Nova Scotia—Women	2	..	..	2
Ontario—Men	..	..	1	1
—Women	3	6	..	9
Prince Edward Island—Women	..	2	..	2
Quebec—Men	..	..	1	1
—Women	20	12	2	34
Newfoundland—Women	..	1	..	1
United States—Women	1	2	..	3
Total—Men	0	0	2	2
—Women	28	26	2	56
	28	26	4	58

FACULTY OF GRADUATE STUDIES

Alberta—Men	1
British Columbia—Men	11
—Women	1
Manitoba—Men	1
New Brunswick—Men	5
—Women	3
Nova Scotia—Men	9
Ontario—Men	7
Quebec—Men	52
—Women	6
Saskatchewan—Men	1
British West Indies—Men	2
China—Men	1
England—Men	3
Newfoundland—Men	2
Scotland—Women	1
South Africa—Men	1
United States—Men	1
—Women	2
Total	110

The total attendance in the several Faculties and Departments is shown under the Geographical List on page 48.

GEOGRAPHICAL ORIGIN OF STUDENTS, SESSION 1923-24

	App. Science	Arts	Commerce	Dentistry	Grad. Nurses	Law	Medicine	Music	Pharmacy	Phys. Ed.	Soc. Workers	Agriculture	Household Sci.	Graduate Sch.	Total
Alberta—Men	3	2	1	3	..	1	30	..	..	..	..	..	..	1	41
—Women	..	1	1	..	..	..	4	..	..	1	..	..	1	..	8
British Columbia—Men	23	5	8	2	..	..	38	..	..	..	..	..	..	11	87
—Women	..	5	1	..	2	..	1	1	..	3	..	..	4	1	18
Manitoba—Men	4	1	1	..	..	..	8	..	..	..	..	..	..	1	15
—Women	..	..	..	..	2	..	..	..	..	..	1	..	..	..	3
New Brunswick—Men	9	9	6	11	..	1	42	..	..	..	..	1	..	5	84
—Women	..	4	..	..	..	..	..	..	..	1	..	..	3	3	11
Nova Scotia—Men	22	3	9	6	..	1	35	..	1	..	..	4	..	9	90
—Women	..	..	..	..	2	..	1	..	..	2	..	..	5	..	10
Ontario—Men	88	52	54	14	..	5	119	..	..	1	..	30	..	7	370
—Women	..	19	2	..	10	..	1	2	..	9	3	..	43	..	89
Prince Edward Island—Men	1	4	..	2	..	..	22	..	..	..	..	1	..	..	30
—Women	..	6	..	..	2	..	..	..	..	2	..	..	2	..	12
Quebec—Men	279	314	100	81	..	62	218	14	48	1	..	259	..	52	1,428
—Women	..	242	6	1	27	2	6	66	1	34	20	..	45	6	456
Saskatchewan—Men	4	1	1	5	..	..	16	..	..	..	..	..	..	1	28
—Women	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
British Guiana	..	1	..	..	..	..	..	..	..	..	..	1	..	..	2
British West Indies	8	11	2	1	..	..	23	..	1	..	..	3	..	2	51
China	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Cuba	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
England—Men	5	3	3	..	..	..	3	..	..	..	..	2	..	3	19
—Women	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1

	App. Science	Arts	Commerce	Dentistry	Grad. Nurses	Law	Medicine	Music	Pharmacy	Phys. Ed.	Soc. Workers	Agriculture	Household Sci.	Graduate Sch.	Total
Galicia	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Gautemala	1	..	..	..	..	..	1	..	..	..	..	..	..	..	2
Ireland—Men	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2
—Women	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Italy	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Newfoundland—Men	8	11	1	1	..	..	10	..	..	..	..	..	..	2	33
—Women	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2
Palestine	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Poland	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Porto Rico	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Scotland—Men	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
—Women	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Serbia	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
South Africa	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Turkey	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
United States—Men	7	18	7	6	..	3	68	1	1	..	..	3	..	..	115
—Women	..	5	..	..	2	..	1	1	..	3	1	..	2	2	17
Wales	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Total	465	719	205	133	48	76	652	85	52	58	26	304	107	110	3,040

In addition, 1,065 were enrolled for Extension Courses and 147 in the French Summer School.

Degrees Conferred

Bachelor of Arts (B.A.)—		
Men	36	
Women	37	
		73
Bachelor of Science in Arts (B.Sc.)—		
Men	7	
Women	4	
		11
Bachelor of Commerce (B.Com.)—		
Men	37	
Women	3	
		40
Bachelor of Science in Applied Science (B.Sc.)—		
In Chemical Engineering	13	
" Civil "	21	
" Electrical "	26	
" Mechanical "	25	
" Metallurgical "	5	
" Mining "	14	
		104
Bachelor of Architecture (B.Arch.)		4
Bachelor of Civil Law (B.C.L.)—Men		22
Bachelor of Laws (LL.B.)—Men		5
Bachelor of Science in Agriculture (B.S.A)		6
Bachelor of Music (Mus. Bac.)—Women		2
Bachelor of Household Science (B.H.S.)		4
Doctor of Dental Surgery (D.D.S.)		24
Doctor of Medicine and Master of Surgery (M.D., C.M.)—		
Men	164	
Women	3	
		167
Master of Arts (M.A.)—		
Men	8	
Women	6	
		14
Master of Science (M.Sc.)—		
Men	28	
Women	3	
		31
Master of Science in Agriculture (M.S.A.)—Men		5
Doctor of Music (Mus.Doc.)—Men		1
Doctor of Philosophy (Ph.D.)—Men		2
Total		515

The Honorary Degree of Doctor of Laws was conferred on the following: Fridtjof Nansen, G.C.V.O., D.C.L.; Lawrence Pearsall Jacks, M.A., D.Litt., LL.D., and George Horace Lorimer, D.Litt.

Diplomas and certificates were awarded as follows:—

(1) DIPLOMAS:—

Diploma of Pharmacy			5
" " Social Science			2
" " Graduate Nurses			23
" " Physical Education			24
" " Licentiate in Music—			
Men	1		
Women	6		
		—	7
Total			61

(2) CERTIFICATES:—

In the Department of Social Workers.....

Principal Benefactions

From the ROCKEFELLER FOUNDATION, $500,000 for the purpose of Medical research.

From LADY RODDICK, $50,000 for the erection of gates in memory of her late husband, Sir Thomas Roddick.

From an ANONYMOUS DONOR, $40,000 towards the purchase of property for a Faculty Club.

From DR. CASEY A. WOOD, books valued at $4,000 and a collection of paintings of birds of Fiji, valued at £600, for the Emma Shearer Wood Library of Ornithology.

From MR. and MRS. R. E. BLACKER, $18,000 for the purchase of books for the Blacker Library.

From LADY STRATHCONA, $120,000 to endow the Chair of Zoology.

From the MONTREAL LIGHT, HEAT AND POWER COMPANY, $200 for prizes in Electrical Engineering.

From LADY OSLER, $100.

From the MONTREAL LIGHT, HEAT AND POWER COMPANY, $5,000 for five years, towards the erection of a building to provide additional accommodation for Electrical Engineering.

From the SHAWINIGAN WATER AND POWER COMPANY, $3,000 for five years, for the same purpose.

From the BELL TELEPHONE COMPANY OF CANADA, $7,500 for the same purpose.

From the NORTHERN ELECTRIC COMPANY, $7,500 for the same purpose.

And other gifts, as mentioned in the reports of the several Faculties and Departments of the University.

By Bequest

$5,000 from the late SAMUEL GREENSHIELDS.

Appointments

F. W. BAXTER, B.A. (Oxon.)
Was Assistant Lecturer in English at King's College, London, England. Appointed Assistant Professor of English.

J. W. BRIDGES, PH.D.
Was Associate Professor of Psychology in the University of Toronto. Appointed Associate Professor of Medical Psychology.

ALEXANDER CAMPBELL, B.SC.
Appointed Demonstrator in Civil Engineering and Lecturer in Mathematics.

T. H. CLARK, PH.D. (Harvard)
Appointed Assistant Professor of Palaeontology.

PERCY E. CORBETT, B.A. (Jurisprudence) (Oxon.), Fellow of All Souls College, Oxford.
Was Associate Legal Adviser to the League of Nations. Appointed Professor of Roman Law.

JOHN COLBORNE FARTHING, B.A. (Oxon.)
Appointed Assistant Professor of Economics.

J. S. FOSTER, PH.D. (Yale).
Appointed Assistant Professor of Physics.

MLLE. BLANCHE FRAMERY.
Appointed Lecturer in French.

W. E. GETTYS, B.A., PH.D.
Was Adjunct Professor of Sociology in the University of Texas. Appointed Assistant Professor of Social Science.

CAMPBELL PALMER HOWARD, B.A., M.D.
Was Professor of Medicine in the State University of Iowa. Appointed Professor of Medicine.

CHESTER E. KELLOGG, B.A. (Bowdoin), M.A., PH.D. (Harvard).
Was Professor of Psychology and Education, Acadia University. Appointed Associate Professor of Psychology.

JONATHAN C. MEAKINS, M.D., F.R.C.P.
Was Professor of Therapeutics and Clinical Medicine in the University of Edinburgh. Appointed Director of the University Clinic in Medicine in the Royal Victoria Hospital, and Head of the Department of Medicine at McGill University.

REGIS MESSAC.
Appointed Assistant Professor of French.

W. T. B. MITCHELL, M.D.
Was Psychiatrist in the Soldiers Civil Re-establishment, Ottawa. Appointed Lecturer in Psychiatry.

MAY REID, B.A.
Was Instructor of Case Work in the Summer School, Columbia University. Appointed Instructor in Social Case Work and Supervisor of Field Work.

W. L. G. WILLIAMS, M.A. (Oxon.), PH.D. (Chicago.)
Appointed Assistant Professor of Mathematics.

A number of Demonstrators and other Assistants were also added to the staff.

Promotions and Changes of Title

MAUDE E. ABBOTT, B.A., M.D., L.R.C.P. & S.
From Lecturer in Pathology to Assistant Professor of Medical Research.

WALTER LINLEY BARLOW, B.A., M.D.
From Lecturer in Surgery and Clinical Surgery to Assistant Professor of Surgery.

W. A. G. BAULD, M.D.
From Demonstrator in Obstetrics and Gynaecology to Lecturer in Obstetrics and Gynaecology.

A. T. BAZIN, D.S.O., M.D.
From Assistant Professor of Surgery and Clinical Surgery to Professor of Surgery.

A. B. CHANDLER, M.D.
From Demonstrator in Pediatrics to Lecturer in Pediatrics.

W. F. CHIPMAN, B.A., B.C.L., K.C.
From Assistant Professor of Civil Law to Associate Professor of Civil Law.

H. B. CUSHING, B.A., M.D.
From Lecturer in Medicine and Clinical Medicine and Pediatrics to Clinical Professor of Pediatrics.

R. DU ROURE, Agrégé ès lettres de l'Université de France.
Appointed Chairman of the Department of French.

E. M. EBERTS, M.D., M.R.C.S.
From Assistant Professor of Surgery and Clinical Surgery to Associate Professor of Surgery.

N. GIBLIN, B.A., M.B., CH.B.
From Lecturer in Physiology to Assistant Professor of Physiology.

A. H. GORDON, M.D.
From Assistant Professor of Medicine and Clinical Medicine to Associate Professor of Medicine.

F. B. GURD, B.A., M.D.
From Lecturer in Immunology and Demonstrator in Clinical Surgery to Lecturer in Immunology and in Surgery.

W. F. HAMILTON, M.D.
From Associate Professor of Medicine and Clinical Medicine to Professor of Medicine.

F. SLATER JACKSON, M.D.
From Lecturer in Embryology to Assistant Professor of Histology.

C. B. KEENAN, D.S.O., M.D.
From Lecturer in Clinical Surgery to Assistant Professor of Surgery.

CHARLES STUART LEMESURIER, B.A., B.C.L.
From Assistant Professor of Commercial Law to Associate Professor of Commercial Law.

D. SCLATER LEWIS, M.Sc., M.D.
From Lecturer in Medicine and Clinical Medicine and in Clinical Therapeutics to Assistant Professor of Therapeutics and Lecturer in Medicine.

J. F. Logan, M.A.
From Demonstrator in Biochemistry to Assistant Professor of Biochemistry.

H. M. Mackay, B.A., B.A.Sc., M.Am.Soc. C.E., Professor of Civil Engineering.
Appointed Dean of the Faculty of Applied Science.

Ira A. Mackay, M.A., LL.B., Ph.D.
From Professor of Constitutional Law to Professor of Logic and Metaphysics, and Acting Dean of the Faculty of Arts.

F. E. McKenty, M.D., F.A.C.S., F.R.C.S.
From Demonstrator in Clinical Surgery and Operative Surgery to Lecturer in Surgery.

Cyrus Macmillan, M.A., Ph.D.
From Associate Professor of English to Molson Professor of the English Language and Literature, and Chairman of the Department.

Otto Maass, M.Sc., Ph.D., F.R.S.C.
From Associate Professor of Chemistry to Professor of Physical Chemistry.

J. A. Nutter, B.A., M.D., F.A.C.S.
From Demonstrator in Orthopaedic Surgery to Lecturer in Orthopaedic Surgery.

R. E. Powell, B.A., M.D., F.R.C.S., F.A.C.S.
From Demonstrator in Genito-Urinary Surgery to Lecturer in Urology.

I. M. Rabinovitch, M.D.
From Demonstrator in Biological Chemistry to Lecturer in Biochemistry and Medicine.

S. Graham Ross, M.D.
From Demonstrator in Pediatrics to Lecturer in Pediatrics.

R. F. Ruttan, B.A., M.D., D.Sc., F.R.S.C., Professor of Chemistry.
Appointed Dean of the Faculty of Graduate Studies and Research.

Herbert A. Smith, M.A.
From Professor of Jurisprudence and Common Law to Professor of Constitutional and Federal Law.

R. L. Stehle, M.A., Ph.D.
From Associate Professor of Pharmacology to Professor of Pharmacology and Chairman of the Department.

Charles T. Sullivan, B.A., Ph.D., D.Sc., F.R.S.C.
From Associate Professor of Mathematics to Professor of Mathematics.

Jennie Laura Symons, M.Sc.
From Demonstrator in Botany to Lecturer in Botany.

William D. Tait, B.A., M.A., Ph.D.
From Associate Professor of Psychology to Professor of Psychology and Chairman of the Department.

I. Maclaren Thompson, B.Sc., M.B., Ch.B.
From Lecturer in Anatomy to Assistant Professor of Anatomy.

PAUL VILLARD, M.A., D.D., M.D.
From Assistant to Associate Professor of French.

G. S. WHITBY, M.Sc., PH.D., A.R.C.Sc.
From Associate Professor of Chemistry to Professor of Organic Chemistry.

A number of Assistant Demonstrators were also promoted to the status of Demonstrators.

Resignations

FRANK D. ADAMS, PH.D., D.Sc., LL.D., F.R.S.
Vice-Principal, Dean of the Faculty of Graduate Studies and of the Faculty of Applied Science and Logan Professor of Geology and Palaeontology. Retired and placed on the list of Emeritus Professors.

F. G. FINLEY, C.B., M.B., M.D.
Professor of Medicine and Clinical Medicine. Retired and placed on the list of Emeritus Professors.

J. A. GRAY, O.B.E., D.Sc., F.R.S.C.
Associate Professor of Physics, to accept the Crown Scientific Research Professorship at Queen's University, Kingston, Ont.

J. W. A. HICKSON, M.A., PH.D.
Frothingham Professor of Logic and Metaphysics. Retired.

CARLETON J. LYNDE, PH.D.
Professor of Physics, to accept the Professorship of Physics in Teachers' College, Columbia University, New York.

HAROLD E. A. ROSE, B.A., B.C.L., LL.M.
Lecturer in Roman and Civil Law, to resume the practice of his profession.

Deaths

A. E. GARROW, M.D.
Assistant Professor of Surgery and Clinical Surgery. Died November 7th, 1923.

JAMES HARKNESS, M.A., LL.D., F.R.S.C.
Peter Redpath Professor of Pure Mathematics. Died December 8th, 1923.

PAUL T. LAFLEUR, M.A.
Molson Professor of English Language and Literature and Professor of Comparative Literature. Died February 9th, 1924.

CHARLES E. MOYSE, B.A., LL.D.,
Emeritus Vice-Principal, Dean of the Faculty of Arts and Molson Professor of the English Language and Literature. Died June 28th, 1924.

J. W. STIRLING, M.B., M.D.,
Emeritus Professor of Ophthalmology. Died December 11th, 1923.

APPENDIX II.

PUBLICATIONS

PART I

The following lists contain such publications of members of the University Staff as were reported for the year, September 1, 1922, to August 31, 1923, in response to a notice from the Principal's Office in June and from the Library in September, 1924.

ABBOTT, M. E.

Analytical review of "Cyanosis. By Christen Lundsgaard and D. D. Van Slyke." (Can. Med. Assoc. Jour., Vol. XIII, no. 8, Aug., 1923, p. 601-604.)

Cardiac defects in the light of comparative anatomy of the vertebrate heart. By M. E. Abbott and Eleanor Shanley. (Bull. no. VIII of the Internat. Assoc. of Med. Museums and Jour. of technical methods. Dec., 1922; *Reprint*: McGill Univ. Pubs., Ser. VIII, no. 18, 1923.)

Case of parasitic thoracopagus with cardiac anomaly in the host. By W. F. Watton and M. E. Abbott. (Bull. no. VIII of the Internat. Assoc. of Med. Museums and Jour. of technical methods, Dec., 1922; *Reprint*: McGill Univ. Pubs., Ser. VIII, no. 14, 1923.)

Mr. E. Z. Massicotte on the Physicians and surgeons of the XVII and XVIII centuries in the district of Montreal. (Can. Med. Assoc. Jour., March, 1923.)

Preparations of the Canadian Army Medical Museum, and its descriptive catalogue, in collaboration with experts. (Bull. no. VIII of the Internat. Assoc. of Med. Museums and Jour. of technical methods, Dec., 1922; *Reprint*: McGill Univ. Pubs., Ser. VIII, no. 4, 1923.)

Sir Mark Armand Ruffer, C.M.G. Obituary. (Bull. no. VIII (p. 241) of the Internat. Assoc. of Med. Museums, 1922.)

Sir William Osler memorial numbers. Editorial. (Bull. no. VIII (p. 9-11) of the Internat. Assoc. of Med. Museums, 1922.)

William Fiske Whitney, 1850-1921. Obituary. (Bull. no. VIII (p. 243-245) of the Internat. Assoc. of Med. Museums, 1922.)

ABBOTT, M. E., *Ed.*

Bulletin no. X of the International Association of Medical Museums and Journal of technical methods (Sir William Osler memorial number, part I.) Toronto, Murray Printing Co., Dec., 1922, 264 p., 8vo.

ABBOTT, M. E. *and* RHEA, L. J.

Sir William Osler, Bart., M.D., F.R.S., 1849-1919. Obituary. (Bull. no. VIII of the Internat. Assoc. of Med. Museums and Jour. of technical methods. Foreword. 1922.)

ABBOTT, M. E., LEWIS, D. S., *and* BEATTIE, W. W.

Differential study of a case of pulmonary stenosis of inflammatory origin (ventricular septum closed) and two cases of (a) pulmonary stenosis, (b) pulmonary atresia of

developmental origin with associated ventricular septal defect and death from paradoxical cerebral embolism. (Amer. jour. of med. sci., Vol. CLXV, p. 636, 1923.)

ARCHIBALD, EDWARD.

Experience in the surgical treatment of unilateral pulmonary tuberculosis. (Amer. Surg. Assoc. Trans., 1922.)

Extrapleural thoracoplasty and a modification of the operation of apicolysis utilizing muscle flaps for compression of the lung. (Nat. Tuberculosis Assoc. Trans., 16th Ann. meeting, 1922.)

Note on compression of the lung by paraffin oil in the pleural cavity. (Amer. rev. of tuberculosis, Dec., 1922.)

BANCROFT, J. A.

Essexites of Mount Royal, Montreal, P.Q. By J. A. Bancroft and W. V. Howard. (Roy. Soc. Can. Trans., Ser. 3, vol. XVII, section 4, p. 13-43, 1923.)

BAZIN, A. T., SCRIMGER, F. A. C., TEES, F. J., MCKIM, L. H., *and* THOMPSON, I. MCL.

Students' guide to operative surgery. Montreal, Renouf Publishing Co. [c1923[. 8+126 p., O.

BEATTIE, W. W., *joint author, see* ABBOTT, M. E., LEWIS, D. S., *and* BEATTIE, W. W.

Differential study of a case of pulmonary stenosis of inflammatory origin (ventricular septum closed) and two cases of (a) pulmonary stenosis, (b) pulmonary atresia of developmental origin with associated ventricular septal defect and death from paradoxical cerebral embolism.

BELLIS, D. M.

Household art. (Jour. of agric., Jan. and March, 1923.)

Nautilus; a pageant representative of the cycle of idealism. (School arts mag., p. 54-58, Sept. ,1922. Davis Press, Worcester, Mass.)

BEST, E. M.

How might the churches plan for the next twenty years. (Religious education, Chicago, June, 1923.)

BIELER, E. S.

Effect of deviations from the inverse square law on the scattering of a-particles. (Camb. Phil. Soc. Proc., Vol. XXI, p. 686-700.)

BIRKETT, H. S.

Transatlantic development of rhino-laryngology; being the Semon lecture of the University of London, delivered before the Royal Society of Medicine, July 12, 1922. (Laryngoscope, St. Louis, March, 1923.)

BLACKADER, A. D.

Presidential address [given before the Canadian Society for the Study of Diseases of Children, at the annual meeting, Montreal, June, 1923.]

[Special articles as Editor of the Journal of the Canadian Medical Association.]

BRAMLEY-MOORE, A.

Eyestrain. Public address, Mechanics' Institute, January 17, 1923.

BRITTON, S. W.

Effects of lowering the temperature of homoiothermic animals. (Q. jour. exp. physiol., Vol. XIII, no. 7, p. 55-68, Sept., 1922.)

BROWN, E. W., *joint author, see* GORDON, KEITH, *and* BROWN, E. W.

Types of organism found in a series of tuberculous children.

BROWN, F. B.

[Special articles as Editor of the Journal of the Engineering Institute of Canada.]

BYERS, W. G. M.

Case of extensive tuberculosis of the eyeball. (Amer. Ophthal. Soc. Trans., 1923.)

Panophthalmitis following infection through a cystoid cicatrix. [Pathological demonstration.] (Amer. Ophthal. Soc. Trans., Vol. 20, p. 260-261, 1922.)

Place of ophthalmology in the undergraduate medical curriculum. (Archives of ophthal. Vol. 51, no. 6, p. 566-576, 1922; Brit. med. jour. July 1, 1922; Amer. Ophthal. Soc. Trans. Vol. 20, p. 215-235, 1922.)

Preliminary report (as chairman) of the Committee of the American Ophthalmological Society on Undergraduate medical studies. (Amer. Ophthal. Soc. Trans. 1923.)

CAMBRON, A., *joint author, see* WHITBY, G. S., *and* CAMBRON, A.

Influence of bases on the activity of vulcanisation accelerators.

CARLETON, E. A.

Acidity of the soil from the viewpoint of its concentration of hydrogen-ion. (Scientific agric. Vol. 3, p. 412-414. Aug., 1923.)

Comparison of the Jones calcium acetate method for lime requirement with the hydrogen-ion concentration of some Quebec soils. (Soil science. Vol. 16, p. 79-90. July, 1923.)

Litmus method for detecting the s il reaction. (Soil science. Vol. 16, p. 91-94, Aug., 1923.)

CARTWRIGHT, E. M.

Athletics for women and girls; an address before the Convention of the Ontario Education Association, Apr., 4, 1923. (Ontario Education Association. Report.)

Place of physical education in the school and home curriculum; address before the annual convention of the Ontario Education Association, Apr. 2, 1923. (Ontario Education Association. Report. Teachers' mag., 2 parts, Oct., 1923, Apr., 1924.)

CHIPMAN, W. F.

Australia and the League of Nations; a review. (Harvard law rev., Dec., 1922.)

Combinations in restraint of trade. (Can. bar. rev, March, 1923.)

COULSON, J. G., *joint author, see* DICKSON, B. T., SUMMERBY, ROBERT, *and* COULSON, J. G.

Experiments in the control of oat smut.

DAWSON, C. A.
Human side of the problem. (Social welfare. Aug., 1923, p. 220-221.)

DICKSON, B. T.
Agricultural research needs in Quebec. (Scientific agric. Vol. 3, p. 308-310, May, 1923.)
Diseases of the potato. (Quebec Soc. Prot. Plants. 14th annual report, Sept., 1922, p. 67-105.)
Plant diseases of 1921 in Quebec. (Quebec Soc. Prot. Plants. 14th annual report, Sept., 1922, p. 52-58.)
Plant diseases of 1922 in western Quebec. (Phytopathology. Vol. 1 , p. 290, May, 1923.)
Raspberry mosaic and curl. (Scientific agric. Vol. 3, p. 308-310, May, 1923.)
Temperature studies in mosaic diseases. II. (Phytopathology. Vol. 13, p. 42, Jan., 1923.)

DICKSON, B. T., *and* HOOD, E. G.
Temperature studies in mosaic diseases. III. (Phytopathology. Vol. 13, p. 42, Jan., 1923.)

DICKSON, B. T., SUMMERBY, ROBERT, *and* COULSCN, J. G.
Experiments in the control of oat smut. (Quebec Soc. Prot. Plants. 15th annual report. Aug., 1923, p. 102-105.)

DOUGLAS, A. V.
Note on the interpretation of the Wegener frequency curve. By G. V. Douglas and A. V. Douglas. (Geol. mag. Vol. LX, no. 705, p. 108-111, Mar., 1923.)
Progression of stellar velocity with absolute magnitude. By A. S. Eddington and A. V. Douglas. (Roy. Astro. Soc. Monthly notices. Vol. LXXXIII, no. 3, p. 112-118, Jan., 1923.)
Sizes of particles in certain pelagic deposits. Communicated by Sir Ernest Rutherford. Roy. Soc. Edin. Proc. Vol. XLIII, part II, no. 16, 1922-1923.)

FORBES, A. M.
Acute osteo-myelitis. (Can. med. jour., Aug., 1923.)
Early treatment of poliomyelitis. (McGill Univ. clinics. Spring of 1923.)

FRASER, JOHN.
Placental circulation. (Amer. jour. of obstetrics and gynaecology. Vol. 6, no. 6, Dec., 1923.)

FRYER, C. E.
Patriotic services of Wm. McKay of Montreal, in the War of 1912, based upon the McKay manuscripts in the McCord National Museum. Read before the Royal Scoiety of Canada at Ottawa, June, 1923. (*To be published.*)

GILLSON, A. H. S.
Caleyan distance and the kinematic space of the restricted theory of relativity. (Roy. Soc. Can. Trans. Ser. 3, vol. XVII, sec. 3, p. 189-190, 1917.)

GORDON, A. H.
Habit of sleep. (Can. Med. Assoc. Jour. Vol. XII, p. 576-—, 1922.)

Menace of typhoid. (Can. Med. Assoc. Jour. Vol. XIII, p. 354-——, 1923.)

Some problems on intercranial diagnosis. (Can. Med. Assoc. Jour. Vol. XII, p. 68-—, 1922.)

Treatment of chronic nephritis. (Can. Med. Assoc. Jour. Vol. XII, p. 32-—, 1922.)

GORDON, KEITH.

Congenital obliteration of the bile ducts and congenital biliary cirrhosis of the liver. (Bost. med. and surg. jour. Vol. 187, no. 25, p. 923-928, Dec. 21st, 1922.)

GORDON, KEITH, *and* BROWN, E. W.

Types of organism found in a series of tuberculous children. (Amer. jour. of diseases of children. Vol. 25, p. 234-246, March, 1923.)

GURD, F. B.

Present status of thoracic surgery. (Amer. jour. of surg. Vol. 37, p. 17-22, Feb., 1923.)

HARRISON, F. C., *and* HOOD, E. G.

Discoloration, smut, or blackening of canned lobster. (Hon. Adv. Council for Scientific & Indust. Research, Ottawa. Report. No. 12, 1923, p. 1-40.)

HATCHER, W. H., *joint author, see* MAASS, O., *and* HATCHER, W. H.

Properties of pure hydrogen peroxide. III.

HENRY, C. K. P.

Cranial and intercranial injuries. (Can. Med. Assoc. Jour. Jan., 1923, p. 26.)

Blood transfusion. (Can. nurse and hosp. rev. Feb., 1923, p. 734.)

HODGINS, S. R. N.

[Special articles as Editor of the Journal of agriculture. (English edition.).]

HOOD, E. G., *joint author, see* DICKSON, B. T., *and* HOOD, E. G.

Temperature studies in mosaic diseases. III.

HOOD E. G., *joint author, see* HARRISON, F. C., *and* HOOD, E. G.

Discoloration, smut, or blackening of canned lobster.

JACKSON, F. S.

Freezing of fish—failure and success. (*Reprinted* from: Contributions to Can. biol., being Studies from the Biol. Stations of Can. N.S. vol. 1, p. 207-302, 1923.)

Islands of Langerhans in Elasmobranch and Teleostean fishes. (*Reprint* from the Jour. of metabolic research. Vol. 2, no. 2, Aug., 1922.)

Note on the preparation of Trematodes and Nematodes for microscopic examination. (*Reprinted* from Bulletin no. VIII of the Internat. Assoc. of Medical Museums and jour. of technical methods. Dec., 1922. Montreal, 1923.)

KEYS, D. A.

Cathode ray oscillograph: time-distribution of potential in a Geissler tube. (Phy. rev. Vol. 21, p. 708, 1923.)

On the piezo-electric constants of tourmaline. *Read but not published.*

New method of investigating the potential changes in magnetos. *Read but not published.*

Time distribution of potential in a Geissler tube. *Read but not published.*

KING, L. V.

Complex anisotropic molecule in relation to the theory of dispersion and scattering of light in gases and liquids. Nature. Vol. III, p. 667, May 19, 1923.)

[Contributions to the report of the Committee on Acoustics]. II. Accoustics in navigation. III. Propagation of. sound in liquids and solids. By A. G. Webster and L. V. King. VIII. Efficiency of sound generators. By A. G– Webster and L. V. King. (National Research Council, *Washington.* Bull. Vol. 4, part 5 (no. 23), p. 6-9; 10-12; 21-23. Nov. 1922).

Note on a lecture-room demonstration of atomic models. Lond., Edin. and Dub. phil. mag. and jour. of sci. (Phil. mag. Vol. 44, p. 295-400, Aug., 1922.)

LAMB, A. S.

Physical education. (Ont. Educa. Assoc. Proc. April, 1923, p. 159-168.)

Physical education for girls. (Ont. Educa. Assoc. Proc. April, 1923, p. 285-290.)

LEWIS, D. S., *joint author, see* ABBOTT, M. E., LEWIS, D. S., *and* BEATTIE, W. W.

Differential study of a case of pulmonary stenosis of inflammatory origin (ventricular septum closed) and two cases of (a) pulmonary stenosis, (b) pulmonary atresia of developmental origin with associated ventricular septal defect and death from paradoxical cerebral embolism.

LLOYD, F. E.

Bog forests of Lake Memphramagog; their destruction and consequent successions in relation to water levels. Roy. Soc. Can. Trans. Ser. III, vol. 16, Sec. V., p. 45-48, 1922.)

Cytology of vegetable crystals. (Science. N.S. Vol. 57, p. 272-274, March 2, 1923.)

Efforts to obtain super-yielding rubber trees, "between U.S." (U.S. Rubber Co. House-organ. Vol. 9, p. 3-7, Dec., 1922.)

Fluorescence in the Cyanophyceae. (Roy. Soc. Can. Trans. Ser. III, Vol. 17, Sec. V, p. 129-136, May, 1923.)

Fluorescence of certain lower plants. (Nature. Vol. 112, p. 132-133, July 28, 1923.)

Greenhouse laboratory of the Department of Botany. (McGill news. Vol. 3, no. 1, p. 5-6, Dec., 1921.)

Method of ultramicroscopy whereby fluorescence in the Cyanophyceae and Diatomeae may be demonstrated. (Science. N.S. Vol. 58, p. 91-92, Aug. 3, 1923.)

Mode of occurrence of tannin in the living cell. (Amer. Leather Chem. Assoc. Jour. Vol. 17, p. 430-450, Sept., 1922.)

New building for the biological sciences. (McGill news. Vol. 2, no. 4, p. 15-16, Oct., 1921.)

Occurrence and functions of tannin in the living cell. (Roy. Can. Soc. Trans. Ser. III, Vol. 16, Sec. V, p. 1-14. May, 1922.)

LLOYD, F. E., *and* SCARTH, G. W.
River-bank and beach vegetables of the St. Lawrence River below Montreal in relation to water-levels. (Roy. Soc. Can. Trans. Ser. III, Vol. 16, Sec. V, p. 49-50, 1922.)

LOCKHART, F. A. L.
Gynaecology. (In "Diseases of middle life; edited by F. A. Craig, and published by the F. A. Davis Company, Phila., 1923.)

LOCKHEAD, WILLIAM.
Protection of plants. (Quebec Soc. Prot. Plants. 15th Annual report, 1922-1923, p. 11-14.)

LOMER, G. R.
Building in Bermuda; illustrated. (House and garden. Vol. XLII, no. 6, Dec., 1922, p. 40-41, 78, 82.)
Library notes. (McGill news. Vol. 3, no. 4, p. 20; Vol. 4 no. 1, p. 8; no. 2, p. 13-14; no. 3, p. 17-18.)
Report of the Library Committee, 1921-22. (McGill Univ. Pubs. Ser. VII, no. 5, 31 p.)
Report of the Library Committee, 1922-23. (McGill Univ. Pubs. Ser. VII, no. 6, 34 p.)

LOMER, G. R., *ed.*
Writing of to-day: models of journalistic prose. 3rd and rev. ed. Selected and discussed by J. W. Cunliffe and G. R. Lomer N.Y., 1922. [12+334 p. O. Century Co.

LOZINSKY, E.
Heat regulation and water exchange, III. The effects of "dry" and "moist" heat upon the body, temperature and blood concentration of dogs. (Amer. jour. of physiol. Vol. LXVII, no. 2, p. 388-398.)
Nontoxicity and antipyretic efficiency of tolysin. (Ethyl ester of paramethylphenylcinchoninic acid). By H. G. Barbour and E. Lozinsky. (Jour. of lab. and clinical med. Vol. VIII, p. 217-226, 1923.)
Tolysin in acute rheumatic fever and other conditions. By H. G. Barbour, E. Lozinsky and C. Clements. (Amer. jour. of med. sci. Vol. CLXVI, no. 5, p. 708-717, 1923.)

MAASS, O., *and* HATCHER, W. H.
Properties of pure hydrogen peroxide, III. (Amer. Chem. Soc. Jour. Vol. 44, no. 11, p. 2472-2480, Nov., 1922.)

MCAULEY, A. G.
Ocular malingerer. (Can. Med. Assoc. Jour. Vol. 13, p. 903-906, Dec., 1923.)

MACKAY, H. M.
Strength of steel-beams haunched with concrete. By H. M. MacKay, P. Gillespie and C. Leluau. (Can. engineer, Toronto. Vol. 45, p. 121-126, July, 1923; Engineering jour., Montreal. Vol. 6, p. 363-369, Aug., 1923.)

MACKENZIE, D. W.
Haematuria; its significance. A brief clinical study of 821 consecutive cases. (Surgery, gynecology and obstetrics. Vol. XXXIX, p. 155-156. Aug., 1924; Can. Med. Assoc. Jour. Vol. XIV, p. 41-42, Jan., 1924.)
Renal tuberculosis. (Can. Med. Assoc. Jour. Vol. XII, p. 620-625.)

MacKenzie, D. W., *and* Seng, M. I.
Prostatics problem. (Surgery, Gynecology, and Obstetrics. Vol. XXXVI, p. 102-106, Jan., 1923.)

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STANSFIELD, ALFRED.

Electric furnace for iron and steel. N.Y., 1923, McGraw Hill Book Co., 453 p. 139 illust.

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SUMMERBY, ROBERT.

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Association du barreau canadien et l'uniformité des lois. (Can. bar rev. Vol. 1, p. 52-61, 1923.)

F. J. Bissaillon, K.C.; a biography. (Le devoir. May 30, 1923.)

"Maria Chapdelaine"; an address delivered before the Women's Canadian Club, St. John, N.B.

Treize mai dans la vie de Jeanne d'Arc; an address given before l'Union Nationale française. (Revue moderne.)

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'Marrow pains' in malaria and in certain other acute fevers. (Can. Med. Assoc. Jour. Vol. XII, p. 134-136, 1922.)

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Some educational and social bearings of mental tests. (Teachers' magazine. Montreal, Dec., 1922.)

Motor speech functions in dreams. (Jour. of abnormal and social psychology. Vol. XVIII, Oct.-Dec., 1923.)

TEES, F. J.

Anterior dislocation at the elbow joint. (Annals of surgery. Vol. LXVII, no. 5, p. 612-614, May, 1923.)

Four cases of volvulus of the small intestine with observations on the etiology. (Can. Med. Assoc. Jour. Vol. 13, no. 6, p. 400-406, June, 1923.)

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TRAQUAIR, RAMSAY.
Caste system of North America. (Atlantic monthly, March, 1923.)
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WHITBY, G. S.
Some new reactions for the detection of sterols. (McGill Univ. Publications. Ser. III, no. 33; *Reprinted* from the Biochem. jour. Vol. 17, no. 1, 1923.)
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Tensile testing of rubber. (India rubber world. March, 1923, p. 362-364.)

WHITBY, G. S., *and* CAMBRON, A.
Influence of bases on the activity of vulcanisation accelerators. (McGill Univ. Publications. Ser. III, no. 37, 1923; *Reprinted* from the Jour. of Soc. Chem. Indust. Vol. XLII, no. 32, Aug. 10, 1923.)

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Acidity of raw rubber. (McGill Univ. Publications. Ser. III, no. 38, 1923; *Reprinted* from the Jour. of Soc. Chem. Indust. Vol. XLII, Aug. 10, 1923.)

WHITNALL, S. E.
Peripheral nervous system. (Revised article in Cunningham's Text-book of anatomy. 5th ed. London, 1922.)
Some descriptive errors in the anatomy of the orbit. (Internat. Cong. of Ophthal. Wash., D.C., 1922.)
Study of anatomy. Montreal, 1922. Renouf Publishing Co.

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Ecology and the partition of biology; Presidential address. (Roy. Soc. Can. Trans. Ser. III, vol. 17, Sec. V, p. 1-9).
Notes on the distribution of free-living Copepoda in Canadian waters. (Contrib. Canadian Biol. New ser. Vol. 1, p. 303-334. Toronto Univ. Press.)
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WILLIAMS, BASIL.
Botha. (Dict. of nat. biog. Supp. vol.)

WILLIAMS, BASIL, *ed.*
Makers of the 19th century series. (Lord Shaftesbury, by J. L. and B. Hammond. Constable & Co., 1923.)

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Embolism of the abdominal aorta. (Can. Med. Assoc. Jour. Vol. 12, p. 647-649, Sept., 1922.)

PUBLICATIONS

PART II

[The following lists contain such publications of members of the University Staff as were reported for the period September 1, 1923, to June 30, 1924, in response to a notice from the Principal's Office in June and from the Library in September, 1924.

ABBOTT, M. E.

New accessions in cardic anomalies. (I) Pulmonary atresia of inflammatory origin, (II) Persistent ostium prenum in Mongolian idiocy. (Bull, no. X (p. 111-116) of the Internat. Assoc. of Med. Museums. April 17, 1924; *Reprint*: McGill Univ. Pubs. Ser. VIII, no. 24, Oct., 1924.)

Special Sir William Osler memorial. Editorial. (Bull. no. X (p. 7-9) of the Internat. Assoc. of Med. Museums, 1924.)

ABBOTT, M. E., *ed.*

Bulletin no. X of the International Association of Medical Museums and Journal of technical methods. N.Y., Paul B. Hoeber Co., April 17, 1924, 165 p., 8vo.

ARCHIBALD, EDWARD.

Contribution to the subject of extrapleural thoracoplasty. Read before the 7th meeting of the American Society of Thoracic Surgeons, Rochester, Minn., June 6th, 1924.

James Bell. A biographical sketch. (Surg., gynaeco. and obstetr. July, 1923.)

Surgical treatment of bronchiectasis. Read before the Montreal Medico-Chirurgical Society, Sept., 1923. (Can. Med. Assoc. Jour. March, 1924.)

Surgical treatment of unilateral pulmonary tuberculosis. Read before the N.Y. Academy of Medicine. Dec. 20, 1923.

Symposium upon the differential diagnosis of abdominal lesions. Read before the Ontario Medical Association, Windsor, Ont., May 31, 1923.

Theories concerning the causation of acute and chronic pancreatitis. Read before the American Surgical Association, Baltimore, Md., April 18, 1924. *In press.*

ARMOUR, J. C., *and* TAIT, JOHN.

Phagocytosis by the omentum. (Q. jour. exp. physiol. Supplement vol. containing Proc. of the XIth. Internat. Physiol. Cong., p. 47, 1923.)

BARBOUR, H. G., *and* BOURNE, WESLEY.

Concerning the effects of anaesthetics on body temperature and blood solids at various environmental conditions. (Anaesthesia and analgesia. June, 1924.)

Heat regulation and water exchange. IV. The influence of ether on dogs. (Amer. jour. of physiol. Vol. 67, no. 2, Jan., 1924.)

BELLIS, D. M.

Music of the spheres; verse. (Macdonald Coll. mag. Feb.-March, 1924.)

Old fashioned house; verse. (Agric. mag. Aug., 1924.)

Pattern; verse. (Teachers' mag., p. 35, April, 1924.)

BIELER, E. S.

Large angle scattering of a-particles by light nuclei. (Roy. Soc. Proc. A. Vol. 105, p. 434-450.)

BIRKETT, H. S.

Report of a case of carcinoma of the larynx, laryngofissure. (Laryngoscope, St. Louis. August, 1923.)

BLACKADER, A. D.

Problem of the nervous child; an address given before the Hamilton Medical Society, January, 1924. (Public health jour. 1924, p. 97-105.)

[Special articles as Editor of the Journal of the Canadian Medical Association.[

BOURNE, C. R.

Suppurative pylephlebitis with pneumococcus septicemia. Clinic of A. H. Gordon and C. R. Bourne. (Medical clinics of N. A. McGill University number. Philadelphia, May, 1924.)

BOURNE, WESLEY.

Blood concentration and body temperature in anaesthesia (British jour. of anaesthesia. Vol. 2, no. 1, 1924.)

Relation between the width of the pupil and the carbon dioxide content of the blood. (Can. Med. Assoc. Jour. May, 1924.)

BOURNE, WESLEY, *joint author, see* BARBOUR, H. G., *and* BOURNE, WESLEY.

Concerning the effects of anaesthetics on body temperature and blood solids.

Heat regulation and water exchange. IV. The influence of ether on dogs.

BOURNE, WESLEY, *joint author, see* STEHLE, R. L., *and* BOURNE, WESLEY.

Concerning the mechanism of acidosis in anaesthesia.

BRAMLEY-MOORE, A.

Care of the eyesight. Public address, Mechanics Institute, Jan. 16, 1924.

BRITTON, S. W.

Body temperature of fishes. (Contribs. to Can. biol. Vol. 1, part 3, p. 413-418, 1923.)

Effects of extreme temperatures on fishes. (Amer. jour. of physiol. Vol. LXVII, no. 2, p. 411-421, Jan., 1924.)

BRITTON, S. W., *joint author, see* TAIT, JOHN, *and* BRITTON, S. W.

Artificial cooling of a hibernating animal.

BYERS, J. R.

Improved method of lung percussion; read at the conference of Sanitarium Medical Superintendents, D.S.C.R., Ottawa, April 9, 1924. (Can. Med. Assoc. Jour. July, 1924.)

BYERS, W. G. M.

Case of encapsulated angioma of the orbit. (Archives of ophthal. Vol. 53, no. 3, 1924.)

Final report of the Committee of the American Ophthalmological Society on Undergraduate studies. (Amer. Ophthal. Soc. Trans. 1924.)

Two cases of reticular keratitis in the new born. (Amer. Ophthal. Soc. Trans. 1924.)

Unusual lodgment of foreign bodies in the conjunctive sac. (Amer. jour. of ophthal. Vol. 7, no. 4, April, 1924.)

CARLETON, E. A.
Acidity of the soil from the viewpoint of its concentration of hydrogen-ion. (Scientific agric. Vol. 3, p. 412-414, August, 1923.)

CHIPMAN, W. F.
Bank customers and forgery. (Can. Bankers' Assoc. Jour. July, 1924.)
Canada's interest in foreign affairs. An address before the Liberal Conservative Association, Oct., 1923.
Canadian authorship. An address before the Rotary Club, Nov., 1923.
Empire at the cross-roads. (Dalhousie rev. Autumn, 1923.)
Fashions in poetic form. An address before the Canadian Authors' Society, March, 1924.
League of Nations. An address before the Kiwanis Club. May, 1924.
League of Nations and land armament. An address before the Lions Club, Sept., 1924.

CLARK, R. J., *joint author, see* REILLEY, H. E., CLARK, R. J., *and* SHAW, A. N.
Temperature coefficients and the corrections for ageing of old and new Weston standard cells of various types. Read at the meeting of the Royal Society of Canada, May, 1924.

COULSON, J. G., *joint author, see* DICKSON, B. T., SUMMERBY, ROBERT, *and* COULSON, J. G.
Smut control experiments with hull-less oats during 1923.

CROWDY, C. T., *joint author, see* ROSS, S. G., *and* CROWDY, C. T.
Tuberculous piopneumothorax on an infant aged five months.

CROWE, MARGUERITE.
Precision determination of the electrical conductivities of concentrated aqueous solutions of calcium chloride. Presented at the meeting of the Royal Society of Canada, May, 1924, by A. N. Shaw.

CUSHING, H. B.
An address on the use of immune sera. (Can. Med. Assoc. Jour. June, 1924.)
Clinic on hoemorrhagic diphtheria. (Medical clinics of N.A. May, 1924, p. 1965.)
Etiology of scarlet fever. (Can. Med. Assoc. Jour. May, 1924.)

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Waste and welfare. Address given at the Social Service Convention, St. John, Jan., 1924. (Social Service Council of Can. Report. Toronto.)

DICKSON, B. T.
Mosaic studies. IV. (Phytopathology. Vol. 14, p. 346, July, 1924.)
Saltation in the organism causing black-dot disease of potato in Canada. (Roy. Soc. Can. Trans. Series 3, Vol. 17, p. 123-127, Sept., 1923.)

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Smut control experiments with hull-less oats during 1923. (Phytopathology. Vol. 14, p. 250, July, 1924.)

DOUGLAS, A. V.
Determination of the curvature invariant of spacetime. Summarized from lectures by L. Silberstein. (Science. Vol. LIX, p. 311-312, April 4, 1924.)

Incomparability of stellar tangential velocities and radial velocities in their relation to absolute magnitude. Presented by A. S. Eve at the Quebec meeting of the Royal Society of Canada. June, 1924.

Real and apparent radial velocities. Communicated by A. S. Eddington. (Roy. Astro. Soc. Monthly notices. Vol. LXXXIV, no. 7, p. 491-493, May, 1924.)

Summer sky. (Roy. Astro. Soc. of Can. Jour. Vol. XVIII, p. 195-198, May, 1924.

Winter sky. (Roy. Astro. Soc. of Can. Jour. Vol. XVIII, no. 3, p. 102-105, March, 1924.)

FAITH, W. V., *joint author, see* STANSFIELD, ALFRED, *and* FAITH, W. V.
Constitution of nickel-copper mattes.

FINLEY, F. G.
Dermato-myositis. (Can. med. jour. June, 1923, p. 391-394.)

FINLEY, F. G., *and* RABINOWITCH, J. M.
Renal glycosuria; a clinical and metabolic study. (Q. jour. med. April, 1924, p. 260-272.)

FORBES, A. M.
Chronic infective arthritis: Chronic rheumatism, rheumatoid arthritis, osteo-arthritis, rheumatic gout, chronic non-tuberculous artnritis, and infectious or toxic arthritis. (Amer. physician. Spring of 1924.)

FRY, F. M.
On a case of sarcoma of the kidney (cured by operation). Read at the 1st annual meeting of the Canadian Society for the Study of Diseases of Children. (Can. Soc. for the Study of Diseases of Children. Trans. 1923; Can. Med. Assoc. Jour. June, 1924, p. 518.)

On fixed principles in infant feeding. (Can. Med. Assoc. Jour. June, 1924, p. 503.)

GORDON, A. H.
Some aspects of migraine. (Internat. clinics. Ser. 34, vol. 1.)

Some types of non-tuberculous pulmonary infection. (Can. Med. Assoc. Jour. Vol. CIV, p. 850-——, 1924.)

Suppurative pylephlebitis with pneumococcus septicemia. (Medical clinics of N.A., 1924.)

GORDON, KEITH.
Combined use of quinidine and digitalis in chronic auricular fibrillation and flutter. (Can. Med. Assoc. Jour. March, 1924.)

GRAHAM, R. P. D.
Mines and mineral deposits of Canada. Paper presented at the Empire Mining and Mineralogical Congress, London, England, June, 1924, 98 p. (Can. Inst. of Mining and Metall. Bull. Nov., 1924.)

GRAHAM, W. C.

John Wesley as a letter writer. (Ryerson essay series.) Toronto, Ryerson Press.

Meaning of the Cross. Toronto, February, 1924, Ryerson Press. 100 p.

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Supposed disturbing factors in the Wassermann reaction. (Jour. of lab. and clin. med. Vol. IX, p. 750-752, 1924.)

HARRIS, E. P. D.

Synopsis of laws of Quebec. (Can. Credit Men's Directory, 1924.)

HARRISON, F. C.

'Miraculous' micro-organism. President's address; Section V, Royal Society of Canada. Read May, 1924. (Roy. Soc. Can. Trans. Ser. 3, vol. 18, Sec. 5, p. 1-17, 1924.)

HATCHER, W. H.

Hydrogen peroxide as an oxidising agent in acid solution. Roy. Soc. Can. Trans. Ser. III, vol. 17, p. 119-124, Oct., 1924.)

HATCHER, W. H., *and* HOLDEN, G. W.

Hydrogen peroxide as an oxidizing agent in acid solution. II. *In press.*

HODGINS, S. R. N.

[Special articles as Editor of the Journal of agriculture. (English edition)]

Why don't you get married? Toronto, 1923, McClelland & Stewart; N.Y., Geo. H. Doran.

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JANE, R. S., *joint author, see* WHITBY, G. S., *and* JANE, R. S.

Influence of various additions to the viscosity of caoutchouc sols.

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Adsorption of certain vapors by alumina. By F. M. G. Johnson and L. A. Munro. *In progress.*

Adsorption of vapors by alumina. By F. M. G. Johnson and L. A. Munro. *Not yet published.*

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JOHNSON, F. M. G., *and* LAROSE, P.
Diffusion of oxygen through silver. (Amer. Chem. Soc. Jour. Vol. 46, no. 6, p. 1377-1389, June, 1924.)

JOHNSON, F. M. G., MAASS, O., *and* (CHIPMAN, H. R.)
Heats of solution of the alkali halides. *In progress.*

KEYS, D. A.
Cathode ray oscillograph and its application to the exact measurement of explosion pressures, potential changes in vacuum tubes and high tension magnetos. (Franklin Inst. Jour. Vol. 196, p. 577-591, 1923.)
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On the adiabatic and isothermal piezo-electric constants of tourmaline. (Lond. Edin. and Dub. phil. mag. and jour. of sci. (Phil. mag.) Ser. 6, vol. 6, p. 999-1001, 1923.)

KING, L. V.
Early Canadian experiments on the acoustic method of depth sounding for navigation purposes. (Nature. Vol. 114, p. 122-123, July 26, 1924.)
On the complex anistropic molecule in relation to the dispersion and scattering of light. (Roy. Soc. Proc. A 104, p. 333-357, Oct., 1923.)
On the direct numerical calculation of elliptic functions and integrals. Cambridge Univ. Press, August, 1924, 6+42 p.

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Concerning exceptional hailstones. (Science. N.S. Vol. 59, p. 17, 4 Jan., 1924.)
Fluorescent colors of plants. (Science. N.S. Vol. 59, p. 541-548, March, 1924.)
Some effects of narcotics on spirogyra. (Anesthesia and analgesia. Vol. 3, p. 9-19, Feb., 1924.)
Truth about banana rubber. Professor Lloyd lays a ghost. (India rubber jour. Vol. 67, p. 341-342. March 1, 1924.)
Ultramicroscopically observable fluorescence. (Science N.S. Vol. 58, p. 229-230. 21 Sept., 1923.)
Vegetation of Canada. (Brit. Assoc. for the Adv. of Sci. Handbook. Toronto, June, 1924, p. 207-228.)

LOCKHEAD, WILLIAM.
Agricultural colleges and agricultural development in Canada. (Roy. Colonial Inst. Jour. Lond. April, 1924.)
From school to farm. Pamphlet published by the C.P.R. in London for distribution in connection with the lectures to the British Public Schools, February, 1924.

LOMER, G. R.
Library notes. (McGill news. Vol. 5, no. 1, p. 4, no. 2, p. 11-12, no 3, p. 9-10, no. 4, p. 5-6.)

MAASS, O.
Conductivities of aqueous solutions of HBr2 and SO2. By O. Maass and C. E. Robertson. *In progress.*

Effect of molecular attraction on the total pressure of a gas mixture. By O. Maass and D. M. Morrison. (Roy. Soc. Can. Trans. 1924.)

Gaseous and liquid states of aggregation. (Pub. in symposium by H. S. Taylor on "A treatise on physical chemistry".)

Hydrogen peroxide. IV. Action of the halogens and halogen hydrides. By O. Maass and P. G. Hiebert. (Amer. Chem. Soc. Jour. Vol. 46, p. 290, 1924.)

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Two component gas systems. By O. Maass and J. H. Mennie. *In progress.*

Vapour pressures of inorganic compounds. (Int. Crit. constant. tables.)

Variation of Van der Waals' "b" with the temperature. By O. Maass and J. H. Mennie. *Not yet published.*

Velocity of reaction between hydrogen chloride and the olefines. By O. Maass and C. Sivertz. *Not yet published.*

MAASS, O., *and* WALDBAUER, L. J.

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MACKENZIE, D. W.

Bacteriology of ureteral cultures. By D. W. MacKenzie and W. J. Cochrane. (Can. Med. Assoc. Jour. April, 1924; Jour. of urology. Vol. XII, p. 43-119, Aug., 1924.)

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MACDONALD COLLEGE

The economic condition of the farmers throughout Canada has resulted in a great falling of attendance at all agricultural colleges in Canada, and Macdonald College has proved no exception to this present predicament. Other factors have contributed, no doubt, to the diminution of attendance, the principal ones being the very few openings at present for graduates—again a reflection of the unfavourable economic conditions—the higher standards of entrance and the relatively few farmers' sons who take their matriculation, and the shortage of labour on the farm necessitating the retention of the boys to help with farm work.

Thanks to the scholarships so generously donated by Mr. Walter Stewart, of the Wm. C. Macdonald Co. Regd., the Quebec Provincial Government, and Dr. Milton Hersey, we have had a large attendance of post-graduate students, no less than twenty-eight having registered on the agricultural side in the Faculty of Graduate Studies and Research. Some of these students are taking two or three years for their course, but at the Convocation in June, twelve were awarded higher degrees.

Considerable difference of opinion exists as to the benefits likely to come from higher agricultural education. There are two opposing points of view which have been put forward with great lucidity by Professor E. Marchal, of the State Institute of Agriculture at Gemblaux, Belgium, which, although written for Belgian conditions, applies equally to Canadian. Higher agricultural education has been accused of being too theoretical and that the student is not kept in touch with the realities of practical work. It is stated that "the training provided at agricultural colleges is much too scientific; it inspires the farmers' sons with too progressive scientific aspirations, and instead of preparing them for rural life, tends rather to alienate them from the work on the land." For those who hold this opinion, the ideal function of the college is to give careful theoretical and practical instruction in the most approved cultural methods to students, preferably themselves originating from the classes directly interested in the cultivation of the

soil, and thus to train scientific agriculturists who will in the future, by their example and influence, stand out as leaders in agricultural progress.

"This desire to attract students from the country districts leads to the following characteristics in the arrangement of the programme of study: comparatively easy conditions of entry, limited duration of course, a constant effort to give a practical bias to all branches of instruction (including the basic sciences), and the predominance of practical work over laboratory and lecture work.

"The contrary theory is represented by those who consider that the function of higher agricultural education is not only to train students who will disseminate the knowledge of the progress already attained, but also, and more especially, to prepare pioneers, research workers, and the moulders of future agricultural progress. With this object in view, the courses at the agricultural colleges, leaving aside all questions of professional training, should develop still further the scientific side and definitely take their place among the recognized higher university studies."

This statement is, in general, very true of conditions in Canada, and Macdonald College, because of its freedom of action and government control, might very readily endeavour to train scientists, competent to carry out original research. In order to do this the student must be given courses of such range and standard as are required for pure science. All the fundamental research in agriculture must eventually be done by the pure science departments; live stock and plant breeding are best served by a study of genetics; plant and animal nutrition by biochemistry; fundamental research on the soil by a combination of chemistry and biology, and so on. Hence if the Faculty of Agriculture of the College is to achieve distinction in the training of researchers, more attention must be paid to the sciences, and the teaching staff increased by the appointment of well-organized teachers in genetics and biochemistry. These subjects, as well as those of botany, chemistry, zoology and bacteriology, are all involved in agriculture, and need to have the same direction and the same standing as they do for medicine.

Students who desire to take higher studies in live stock, agronomy, horticulture and poultry, are forced into the sciences, and therefore it is absolutely necessary to have the strongest staffs possible in the sciences mentioned.

This year the School for Teachers has had the largest entry since its existence. The large elementary class, coming in at the end of January, taxed our residence accommodation, and in spite of crowding we were unable to accommodate all who came in the college residences, and a number had to find lodgings on the campus or in the town of Ste. Annes. A special report concerning the growth of the school, the necessity of more residence accommodation, and for added help to cope with the larger classes, has been presented to the Board of Governors, and also to the provincial authorities, so that further comment here is unnecessary.

The School of Household Science had a successful year, but the number of students admitted in this school had to be limited, owing to the lack of residence. The new course leading to the degree of B.H.S., is now in its third year, and those who have taken it have been very successful in obtaining good positions.

The School of Agriculture

The work in the various departments of the School of Agriculture, as outlined by the heads of the departments, is as follows:—

Agricultural Engineering

Teaching of the School of Agriculture courses, described in the announcement, occupied the major portion of the time of the staff. In addition, manual training was taught to grades X, IX, VIII, and VII of the high school; the amount of time spent on this work being six hours per week for one man.

A farm power and drainage short course was offered for the first time during the past winter. This course was of two weeks duration, which was sufficiently long to give the students time to get considerable practice in the forge shop and in the gas engine laboratory. The attendance was larger than expected and if others had applied they could not have been handled, owing

to lack of equipment in the forge shop. Forty-six men were in attendance throughout the entire course. Interest was keen and the experiment was sufficiently successful to warrant repetition during the coming winter.

Owing to the addition of an assistant lecturer, it has been possible to take care of the courses in farm machinery, forge work, farm power and land drainage much more satisfactorily. It is essential to best results that considerable laboratory and practical work be given in these subjects. To put this work on, however, requires first considerable laboratory equipment and secondly, a great deal of preparatory work before each class. The addition of an assistant lecturer has made it possible to strengthen these courses considerably.

RESEARCH WORK—There are under way in this department at present, three projects in agricultural engineering research.

EXTENSION WORK—At the request of the Department of Agriculture of the Province of Quebec, this department prepared a bulletin on "Tile Drainage of Farm Lands," which has just been placed in the hands of the printer. This is the second bulletin produced by this department during the last two years.

There has been a considerable demand for advice in connection with power problems, water supplies, sewerage and farm buildings plans. In this connection several barn plans were prepared; the originals of these remain the property of the department and will be used as standard plans to supply future requests.

Agronomy

The activities of the agronomy department are conducted along three main lines: teaching, research and extension.

TEACHING involves courses to the undergraduates and to graduates leading to the degree of M.S.A. During 1923-1924 advanced courses for graduate students were given for the first time. Nine graduate students took major work in agronomy. Five of these received the master's degree, one completed the course work, and two completed one term's work each. All of the agricultural colleges in Canada were represented in this group of graduate students.

INVESTIGATION—A large part of the department's activities is devoted to investigations and breeding work with field crops. The time of the staff during the summer is entirely, and during the winter is partly, taken up by this work. Most of the investigational projects involve periods varying from five to fifteen years. Systematic breeding work is a gradual process of combining characters, and therefore is continuous.

For purposes of research, as well as for teaching, the crops are divided into three groups: Cereals, hay and pasture crops, and corn and roots, with a member of the staff in charge of each. With each group the lines of work followed are: The study of cultural methods, the study of types and varieties, and breeding. The following paragraphs give an outline of the work conducted.

CEREALS—The cultural studies with cereals conducted during the year were: Influence of Time of Seeding on Early Oats and on Fall Rye; Influence of Rates of Seeding on Early Oats and on Barley, and the Comparison of Drilling and Broadcasting with Wheat, Barley and Oats.

The variety tests included a few standard varieties, new varieities distributed from plant breeding stations, and new varieities and strains developed through the plant breeding work here.

The plant breeding activities, which are largely concentrated on oats and barley, are planned to obtain:

With oats: high yielding, early maturing varieties; medium to late maturing varieties producing grain of superior quality; strength of straw; disease resistance.

With barley: high yielding, strong-strawed, hull-less varieties; high yielding, smooth awned varieties.

In relation to the breeding work, a project was organized to study the relative susceptibility of oat varieties and strains of smut. In this study special attention is given to new varieties being developed here, and to varieties being considered as parent material in the breeding work.

The use of electric light to supplement daylight in the greenhouse when growing cereal breeding material during winter months, so as to hasten maturity, was experimented with. This experiment has shown that

it is possible to mature oats sufficiently early to allow for spring seeding in the field, thus shortening the process of breeding by one year.

Definite progress has been made in oat breeding since the commencement of the work in 1907. One of the new varieties, 0.1512, gave excellent results in the tests conducted here and in co-operative tests conducted in different parts of Quebec. It proved to be high yielding, to produce grain of superior quality, and to be very resistant to covered smut of oats. Of the large number of new varieties which had been in the preliminary tests for three years, seventeen were found to be sufficiently good to be put in the field tests.

The breeding of satisfactory smooth-awned, and hull-less barleys, is a building-up process. During the year this work reached the stage where the second back-cross with good six-rowed barleys was made.

As a result of testing and breeding, new varieties have been introduced. The Alaska oat fills an important need where earliness is necessary, and produces a high yield of grain of excellent quality. Out of the Banner oat was selected Banner 44 M.C. As the result of fifty-three comparisons at Macdonald College, covering a period of thirteen years, this new variety has out-yielded the parent by over five per cent. In tests, carried on in the country, its yield in relation to the parent variety was greater by seven per cent.

In wheat, a selection from the Kharkov variety has proven to be highly winter-resistant and has given good results in many parts of Canada.

Hay and Pasture Crops—The work with hay and pasture crops was largely confined to breeding problems. Some cultural experiments were also conducted. These centered around the production of red clover for hay and for seed.

The variety tests were largely in relation to the adaptability and productivity of strains of alfalfa, red clover, orchard grass, and timothy which had been developed in the breeding work. In addition, a project was undertaken to study the comparative adaptability, specially as to winter-resistance, of red clover grown from seed produced in various parts of Quebec and Northern Ontario, and from commercial seed.

The breeding work with hay and pasture crops is planned to obtain:—

Hardiness,
Resistance to disease,
Good seed production,
Early and late maturing types, and
Productivity

CORN AND ROOTS—The principal cultural study with corn is that of the influence of method and thickness of planting on the yield and on the chemical composition of the crop. The cultural studies, relative to the influence of time of seeding on mangels and carrots, and influence of size of seed on swedes, were completed in 1923.

The breeding work with root crops, by self-fertilizing one season, followed by continuous mass selection, was continued. In addition, the study was begun of the influence of continued self-fertilization on certain lines of mangels and swedes.

With corn, the breeding work followed three main lines: Maintaining a supply of Quebec No. 28 Foundation Seed; the application of ear-to-row method of corn breeding to North Western Dent, and the development of pure lines of North Western Dent with the object of building up superior strains by subsequent crossing of pure lines.

A number of problems relative to experimental methods with field crops were studied. These were:—

Size and shape of plots,
Methods of replication,
Methods of using check plots,
Duration of Experiments.

EXTENSION—Little extension work of a general nature is conducted, the greatest attention being given to a few special projects as follows:—

Demonstration fields of fall rye to help popularize the crop.

Assisting in developing an Alaska oat seed centre in Portneuf County.

Multiplication and introduction of Banner 44 M C. seed:

(a) Multiplication of stock seed at Ste. Rosalie Junction, P.Q.

(b) Assisting in establishing a Banner 44 M.C. seed centre in Bagot and Ste. Hyacinthe Counties.

Co-operative oat variety tests. Testing a number of oat varieties on five farms in each of three counties in Quebec

Alfalfa.—A project to determine what methods must be followed to successfully grow alfalfa in certain parts of the Eastern Townships.

Publications

Summerby, R., 1922—"A New Hardy Variety of Fall Wheat." Scientific Agriculture, vol. II., pp. 168-169.

Summerby, R., 1923—"Replication in Relation to Accuracy in Comparative Field Tests." Jour. of Am. Soc. of Agron., vol. 15, pp. 192-199.

Summerby, R., and Lods, E. A.—"Experiments with Grain Crops at Macdonald College. 1907-1922." (Prepared for Quebec Dept. of Agriculture, but not yet published.)

The following summaries were prepared for the Quebec Minister of Agriculture:—

"Summary of Cultural Experiments and Variety Tests with Cereals": Report of Quebec Minister of Agriculture, 1921-22.

"Summary of Cultural Experiments with Root Crops": Report of Minister of Agriculture, 1923-24.

The following circulars have been published in English and French:—

"Grain Crops and Their Culture."
"Fall Rye in Quebec."
"Oats."
"Planting and Caring for the Corn Crop in Quebec."
"Grain Corn."
"Sources of Seed and Varieties of Fodder Corn."
"Sunflowers."
"Root Growing."
"Hay and Pasture Crops."
"Supplementary Hay and Pasture Crops."
"Alfalfa Growing in Quebec."
"Sweet Clover."
"Sources of Seed."
"Soil Management and Crop Rotations."
"Farm Manures."
"Green Manuring."

Animal Husbandry

The work of this department may be divided under four headings: Administration, teaching, investigation and extension.

ADMINISTRATION of academic activities had no unusual developments during the past year. The supervision of the College herds and flocks, together with the management of the two College farms, presented some special difficulties because of the reduced appropriations and the commercial situation. The cost of labour and supplies has not fallen to any appreciable extent while returns for farm products have materially decreased. Curtailed expenditure, therefore, makes it difficult to maintain upkeep and revenue and naturally precludes making permanent farm improvements. Despite difficulties, however, this department, if measured by crop production, live stock improvement, or even financial returns, should be considered as having had a satisfactory year.

TEACHING included the regular courses in animal husbandry and farm management.

INVESTIGATION was necessarily limited, owing to lack of funds, but the department managed to keep some work under way at all times. Effort was centered on obtaining information of special value to the farmers of Quebec. The following summary report will serve to illustrate the type of information distributed:—

Feed Cost of Milk and Butter Fat, 1923
Macdonald College, Main Farm Herd

(Figures are in pounds unless otherwise marked)

Period	Winter Feeding Period	Pasture Season June 5th to Sept. 30th	Average for 1923 Jan. 1st to Dec. 31st.
Days in period	248	117	365
Total cow days	5,987	2,427	8,414
Number cow days dry	582	226	808
Number cow days in milk	5,405	2,201	7,606
Total milk produced	157,656	48,209	205,865
Average fat test	3.77%	3.7%	3.75%
Total fat produced	5,944.6	1,783.73	7,728.33
Av. milk per day per cow	26.3	19.9	24.5
Av. fat per day per cow	.993	.736	.919
Av. daily ration:			
Meal	7.37	2.69	5.87
Oilmeal	.61	0	.41
Beet pulp	2.53	0	1.72
Silage	42.19	1.56	29.17
Hay	7.14	0	4.85

Period	Average for 1923 Jan. 1st to Dec. 31st.	Pasture Season June 5th to Sept. 30th	Winter Feeding Period
Feed required per 100 lbs. milk:			
Meal	28.2	13.52	23.49
Oilmeal	2.22	0	1.51
Beet pulp	8.59	0	3.80
Silage	164.	7.84	113.95
Hay	27.5	0	18.69
Feed required per lb. fat:			
Meal	7.5	3.65	6.27
Oilmeal	.58	0	.39
Beet pulp	2.27	0	1.54
Silage	44.28	2.12	30.77
Hay	7.31	0	4.95
Feed cost per 100 lbs. milk	$1.20	46.5 cents	96.5 cents
Feed cost per lb. fat	31.25 cents	5.71 cents	23.1 cents

WHAT THE FIGURES SHOW:

1. Each cow in the main farm herd averaged 35 dry days during 1923.

2. The average milk produced per cow during 1923 was 8,942 pounds, or an average daily production of 24.5 pounds.

3. Based on Montreal milk prices, the average value returned per cow, in milk produced, amounte d to approximately $225.

4. At prevailing prices, and with feed cost figured as 50 per cent. of the total, the cost of the milk produced per cow, during 1923, amounted to about $175.

EXTENSION has been confined to what may be termed regular field work, including lectures and conferences at farmers' and breeders' meetings, judging at fairs, conducting judging competitions, press articles, and answering farmers' enquiries.

Bacteriology

The usual lectures and laboratory work have been given to students of the three schools, and also to seven men students taking post-graduate courses.

Dr. E. G. Hood left at the end of 1923 in order to accept the position of bacteriologist to the Dairy Branch of the Dominion Department of Agriculture. This threw an increased amount of teaching on the head of the department, and, in consequence, less research work has been accomplished

Mr. Paul Smith, B.S.A., has completed a paper on "Azotobacter Content of Acid Soils"; Miss Margaret Perry on "Media for the Lactic Acid Group of Bacteria"; Dr. F. C. Harrison gave, as his presidential address to Section V of the Royal Society of Canada, a paper on "The 'Miraculous' Micro-Organism."

Botany

UNDERGRADUATE TEACHING—The usual general and specialist courses have been given as heretofore. One student graduated as a specialist in plant pathology, and three men in the junior year took the specialty and are planning to continue.

GRADUATE TEACHING—Six graduate students took major work in the department. Mr. W. L. Gordon and Mr. G. A. Scott graduated with M.Sc., one candidate dropped out and three are continuing next session.

Eight other graduate students took minor work, of whom two dropped out and the remainder completed satisfactory courses.

RESEARCH—Dr. Dickson continued his work on mosaic and virus diseases generally. Mr. Atwell, a graduate student, made many examinations of severely diseased White Burley tobacco and found bodies, apparently similar to those described by Kunkel and others, near the nuclei in affected cells. Those near the nuclei have not been observed to move in any sense. They appear to be a result rather than the cause of mosaic.

Because of lack of funds and help, application was made to the Research Council for a grant to aid in the study of virus diseases of the potato. In all likelihood a strong committee will be appointed to tackle this difficult and important problem.

Further work has been done on the black dot disease of potato, which is more common than was expected three years ago. Cultures of the organisms involved were obtained from England, France, Ohio, Pennsylvania, West Virginia and Quebec. Mr. G. A. Scott made a careful study of these and was able to conclude that they are sufficiently similar to go under the same name. Pathogenicity studies of the organisms are still in progress.

Field tests were again completed, in co-operation with the Crop Protection Institute of America, concerning the use of copper carbonate dust at the rate of two to three ounces per bushel, in controlling smuts of oats and stinking smut of wheat. Results here were satisfactory.

Mr. J. G. Coulson, M.A., is making preliminary studies of the pH of apple trees, taken at various times of the year and using different parts of the tree. It is hoped that this will throw some light on winter injury.

Mr. T. C. Vanterpool is engaged in determining the cause and control of a serious tomato disease, known from its symptoms as "streak" or "stripe" disease. In England and Pennsylvania it is ascribed to bacteria, but with us in Quebec this is not yet established, and it would appear that the disease is a type of severe mosaic.

Mr. W. L. Gordon carried out careful experiments, in laboratory and greenhouse, to ascertain what injury occurred after the use of formalin to control smut in oats, etc., and how it might be prevented. He also tested such substances as Uspulun and copper carbonate dust. When injury occurred it was always to the root system and sometimes to root and shoot, but never to the shoot alone. Presoaking for two hours or more before formalin treatment, or the use of milk of lime after treatment, effectually prevented injury to the grain. Uspulum appeared to stimulate germination and early growth to a certain extent.

Mr. Moise Gagnon commenced a study of the Alternaria disease of potato and tomato, both of which crops have been severely affected these last two years.

PUBLICATIONS—The following papers from this department have been published since September, 1922:—

B.T. Dickson—"Agricultural research needs in Quebec." Scientific Agriculture, March, 1923.

B. T. Dickson—"Raspberry mosaic and leafcurl." Scientific Agriculture, May, 1923.

B. T. Dickson—"Plant diseases of 1922 in W. Quebec." Que. Soc. Prot. Plants. 15th Rept.

B. T. Dickson—"Saltation in the organisms causing black-dot disease of the potato in Canada." Trans. Roy. Soc., Canada, 1923.

B. T. Dickson, R. Summerby and J. G. Coulson—"The control of oat smut." Que. Soc. Prot. Plants. 15th Rept.

J. G. Coulson—"Diseases of the Peony." Que. Soc. Prot. Plants. 15th Rept.

A. G. Dustan—"The natural control of the green apple bug by a new species of empusa." Que. Soc. Prot. Plants. 15th Rept.
T. G. Major—"Studies of root-rot Fusaria." Que. Soc. Prot. Plants. 15th Rept.
J. K. Richardson—"Rhizome rot of Iris." Que. Soc. Prot. Plants. 15th Rept.

Chemistry

A teaching assistant was added to the staff of the department this year, and through the generosity of Dr. Milton L. Hersey, of Montreal, a graduate scholarship was established, in the award of which preference is to be given to students of agricultural chemistry. In addition to the appointees to the assistantship and the scholarship, the College has had two other graduate students taking chemistry as a major subject, two taking it as a minor subject and several others whose theses have involved more or less chemical analysis. Regular instruction has been given to graduate students in lectures, tutorials, seminars and visits to industrial plants in Montreal.

Of the three specialists in chemistry who graduated in 1923, two have found positions in the pulp and paper industry, while the third received an industrial fellowship in the University of Maryland, where his work is giving great satisfaction.

During the year the work on soil acidity, undertaken under a grant from the Honorary Advisory Council for Scientific and Industrial Research, has been completed and reported. The soil samples collected for this work have been further used in studies on calcium and phosphate deficiencies in Quebec soils, conducted by Messrs. Lionel Beaudet and Luc Duval, graduates of the Agricultural School of Ste. Anne de la Pocatiere, and candidates for the degree of M.Sc. in McGill University. Mr. W. A. DeLong, B.S.A. (Toronto), recipient of the Milton L. Hersey scholarship, has conducted an investigation on the relation of winter hardiness in apple trees to the pentosan content of roots and shoots. Mr. S. C. Robison, B.S.A. (Alberta), did some work towards the isolation of the flavouring matter of maple sugar and presented an acceptable thesis on this topic. The exhaustive

mathematical analysis of the results of twelve years experimentation on rotations, made by Mr. E. G. Bayfield, B.S.A. (Alberta), in the agronomy department, involved some study of the results of the chemical analysis of the soils of these plots, a work which has been in progress for several years and is still being continued.

PUBLICATIONS, SEPTEMBER, 1922, TO MAY, 1924:

Snell, J. F.—"Agricultural research problems in Canada." (C. S. T. A. Committee Report for 1921-1922.) Scientific Agriculture, 1922, 3, 3-17. Sept. 1922.

Snell, J. F.—" 'Chemor' or Nothing." Canadian Chemistry and Metallurgy. Oct., 1922, 6, 213.

Snell, J. F.—"Graduate representation and more democratic appointment methods." The University of Toronto Monthly. Oct., 1922, 23, 13-15.

Snell, J. F.—"How research serves the agricultural industry." Scientific Agriculture, March, 1923, 3, 235-237.

Snell, J. F.—"Report of the C.S.T.A. Committee on Research for 1922-23." Scientific Agriculture. July, 1923, 3, 386-389.

Snell, J. F.—"Re the Association of Official Analysts." Canadian Chemistry and Industry. Sept. 1923, 7, 225.

Snell, J. F.—"The menace of University Presidents." Dalhousie Review. Jan., 1924, 3, 439-452.

Snell, J. F.—"A designation for members of the chemical profession." Chemistry and Industry. April 18th, 1924, 43, 408.

Snell, J. F.—"Rosanoff's classification of the Monosaccharides." Presented at the Canadian Chemists' Convention, Kingston, Ont. May 28, 1924.

Snell, J. F.—"Dr. Carleton John Lynde, Macdonald's First Professor of Physics." Macdonald College Magazine. April-May, 1924, 14, 250-252.

Snell, J. F. and Carleton, E. A.—"Acidity and lime requirement studies on Quebec soils." Report to the Honorary Advisory Council for Scientific and Industrial Research (Oct., 1923).

Carleton, E. A.—"The acidity of the soil from the viewpoint of its concentration of hydrogen-ion." Scientific Agriculture, vol. 3, pp. 412-414. (Aug., 1923).

Carleton, E. A.—"A comparison of the Jones calcium acetate method for lime requirement with the hydrogen-ion concentration of some Quebec soils." Soil Science, vol. 16, pp. 79-90. (July, 1923).

Carleton, E. A.—"The litmus method for detecting the soil reaction." Soil Science, vol. 16, pp. 91-94. (Aug., 1923).

Robison, S. C.—"The 'elements' of a permanent agriculture—a sketch of the chemical needs of soils." Jour. of Agriculture and Horticulture (Quebec), 27, 166-7. (May, 1924).

Entomology and Zoology

This department gave sixteen courses to undergraduates in the School of Agriculture, including an introductory course in genetics, one in geology, and two in biology in the School of Household Science. In addition, courses of lectures were given to the winter course and short course students in agriculture.

During the year, four graduate students specialized in entomology and zoology, one taking the master's degree.

With regard to investigations:—Mr. Hammond made special study of the genitalia of Graptolitha (green fruit worms); Mr. T. Armstrong is making a comparative study of the mouth parts of the Scarabaeidae (white grubs, et al); and Mr. A. D. Baker a comparative study of the genitalia of the Pentatomidae (stink bugs).

Dr. DuPorte has continued his studies of Protozoa in the latex of certain plants, and has given satisfactory courses to the graduate students and to the third and fourth year classes; while Mr. A. D. Baker, appointed to the staff in October last, has done excellent work, mainly with the first and second year classes.

During the second term the head of the department was absent in Great Britain and reported arriving in London on January 5, 1924, for the purpose of visiting public schools in Great Britain and Ireland, and

interesting boys in the agricultural possibilities of Canada. Canadian Pacific Railway officials at once brought him into touch with Mr. W. A. Bulkeley Evans, Secretary of the Headmasters' Conference, and at Mr. Evans' suggestion, a letter was prepared by Professor Lochhead, signed by Mr. Evans, and sent to the public schools in the association, setting forth Professor Lochhead's mission, and requesting alternative dates on which he could visit the schools. This letter met with enthusiastic response, but as both the Christmas holidays and the Easter holidays broke into the length of Professor Lochhead's stay in the Old Country, the time for visiting the schools was limited to eight weeks. In all, 32 schools were visited, including five in North Ireland and two in Scotland. Professor Lochhead received a hearty welcome from all headmasters and boys. As his lectures were limited to one hour, he spoke for half-an-hour on the resources of Canada and the opportunities for development; the need for *trained* leaders in agriculture, pointing out agricultural leaders had as much chance of rising to the highest civic positions as had leaders in other professions; the plan of attending Macdonald College, and working during the summer vacation on a Canadian Pacific Railway selected farm, and the cost of an eight-months' session at Macdonald College. Slides depicting college life, the Canadian Pacific Railway and a trip across Canada, were shown for the remaining half-hour.

Professor Lochhead is under the impression that his lectures were as enlightening to headmasters and their staffs as to the boys, misapprehension regarding present-day Canadian conditions appearing to be general.

Professor Lochhead is entirely satisfied with the results of his mission, although he can report no tangible results. Interest has been stimulated, and bona fide enquiries made, and he feels that good will result. He considers, however, that it will be necessary to maintain this interest, and to this end suggests: the employment of a man, fully conversant with Canadian life, and in touch with public and other schools,to visit these schools each year; by sending leaflets to the schools containing information likely to interest the boys, and by the placing of a number of scholarships

among public school boys, tenable at Macdonald College, and preferably for the long course. Professor Lochhead also considers it imperative that secondary schools not on the Headmasters' Conference list should be visited. In his judgment these would furnish a large proportion of likely young men for the Canadian agricultural colleges.

An illustrated eight-page leaflet was prepared by Professor Lochhead entitled: "By Canadian Pacific from school to farm," for distribution to all schools visited, and containing the main points touched upon in his addresses. He prepared an article on Macdonald College for "Canada," fifty copies of which were distributed to all schools visited, through the kindness of the Hon. Mr. Larkin and Col. Obed Smith. Whilst in London, he read a paper on "Agricultural colleges and agricultural development in Canada" before the Royal Colonial Institute, receiving favourable mention in many London papers. In addition, he was interviewed by several reporters from leading periodicals.

Professor Lochhead recorded his appreciation of many kindnesses and courtesies extended to him by the Canadian Pacific Railway officials, mentioning more especially Major E. Ewan Moore and his staff; Major W. H. Hayward, for assisting in the programme arrangement, correspondence, etc., and Mr. Gill for publicity and the loan of lantern slides. Also Principal Harrison and Colonel J. S. Dennis for making such a visit to the British public schools possible.

Horticulture

INSTRUCTION—The regular courses of instruction, with the exception of the senior year, have been given and, in addition, short courses in horticulture and apiculture. These short courses were attended by 70 and by 47 students respectively. Lectures and demonstrations in various parts of the province have been held, as occasion required.

MANAGEMENT—The season of 1923 was, on the whole, favourable for crop production, although the early season was backward. The following is a partial statement of the produce harvested during the year:—

978 barrels of apples.
5,198 boxes strawberries.

3,451 boxes raspberries.
433 6-qt. baskets currants and gooseberries.
2,580 lbs. asparagus.
1,683 doz. corn.
410 bus. onions.
303 bus. tomatoes.
820 bus. potatoes.
2,054 lbs. honey.

In addition, there was a large quantity of other vegetables and some fruits. The greenhouses have at all times looked well and have returned a bountiful supply of flowers, plants and vegetables.

The campus has presented its usual fine appearance and attracts much attention throughout the season. The collection of trees, shrubs, lilacs, peonies and iris, and the perennial borders, are important features on the campus.

EXPERIMENT WORK—Experiments in spraying and dusting the apple orchard have now been carried on for some years, and as a result the lime-sulphur solution has proven more satisfactory than Bordeaux mixture. Dusting has been more expensive than spraying, and the effect in controlling apple scab and some of the insects has not been as great as with the liquid sprays.

Experiments in dusting versus spraying potatoes have given more favourable results with dusting than in the case of the apple. Copper, lime, arsenate and nicotine are being used in combination for effective dusting. This work is being continued as it is expected that further improvements may be made in its applications as well as in the proportions of the different ingredients entering into the dust.

Fertilizer and cultivation experiments in the orchard are being continued and a detailed study of fruit bud formation in the apple is being made.

An experiment in the treatment of seed potatoes for early crop production is now in its third season. Sprouted tubers, "greened tubers," and dormant tubers have been used in this experiment, and the advantages of the two former methods of treatment have been very marked in the production of early potatoes. Indications would point to the use of the "greened tubers" as the most practical method of handling the seed.

A quantity of improved seed of the Malcolm and Golden Bantam corn has been produced and distributed. The demand far exceeds the supply and, for the coming season, an increased area is under crop.

The distribution of strawberry plants in 1923 was a success and arrangements are being made to continue this work in 1925, with the addition to the list of raspberry and asparagus plants.

The apiary has again produced an average of 75 lbs. of honey per colony. It can, to advantage, be made an important sideline or even specialty on many farms. The past winter has demonstrated the importance of having ample food supplies in the hives for outdoor wintering. If this is provided, if necessary by feeding, and the hives are properly protected in winter cases, the bees should winter in perfect condition, thus avoiding large losses in winter-killing or from starvation.

We have issued, or revised, during the year the following concise directions and information on horticultural subjects, all of which have been freely circulated:—

1. "Currant and Gooseberry culture."
2. "Raspberry culture."
3. "Strawberry culture."
4. "Celery culture."
5. "Melon growing."
6. "Onion culture."
7. "Potato culture" (two pages).
8. "Tomato culture."
9. "Select list of fruits."
10. "Select varieties of vegetables."
11. "The city home grounds."
12. "List of trees, shrubs, perennials, etc."
13. "Books, periodicals and reports on horticultural subjects" (six pages).
14. "Horticultural supplies, manufacturers, etc." (two pages).
15. "Horticultural supplies, manufacturers, etc." (six pages).
16. "Books, bulletins and magazines on horticultural subjects" (one page).
17. "The making and care of a lawn."
18. "Asparagus culture."

19. "Controlling common garden and insect diseases."
20. "Beekeeping supply houses, books, magazines, bulletins."

In addition a number of radio talks have been broadcasted from the Marconi Broadcasting Station. These talks have been sent out at intervals of one week and have been much appreciated by many radio "fans." The following subjects have been treated to date:—

1. "How to plan your garden for 1924."
2. "Beautiful shrubs for every home."
3. "The attractive arrangement of flowering shrubs."
4. "The care of house plants in your window."
5. "Strawberries for every garden."
6. "How to make and manage a hotbed."
7. "Dahlias and how to grow them."
8. "Gladioli for every garden."
9. "How to prepare the garden soil."
10. "Buying a garden hose."
11. "Pointers on watering the garden."
12. "How to destroy garden pests."
13. "Raising the pansy from seed sown in the open."
14. "Where to plant the pansy in the garden."

The Quebec Pomological and Fruit Growing Society held its winter meeting at the College in December. This meeting was one of the largest and most successful in its history. The society is also holding its summer meeting at the College, in June, in the strawberry season. The Montreal Gardeners and Florists Club visited the department on April 8th and had an enjoyable and profitable visit. A large delegation of vegetable growers made their annual visit to the department in August, 1923.

Much correspondence has been attended to and in this way enquiries are answered and information given.

Physics

During 1923-24, instruction in physics was given to classes in the first, second and third years of the School of Agriculture, and in the first, second and fourth years of the School of Household Science.

Poultry Husbandry

The year 1923-24 has been a most successful one for the poultry department in its breeding work. So far, much better results have been obtained in egg production, incubation and brooding with the pedigreed bred-to-lay strains of Barred Plymouth Rocks, S. C. Rhode Island Reds and S. C. White Leghorns. The fall and early winter egg production from the pullet flocks was excellent. Over 11,000 chickens were hatched during the season, of which over 7,000 were kept on the department, the balance being disposed of as baby chicks to various poultry keepers in Quebec. The aim of the department is to keep more pedigreed laying and breeding stock in order that more breeding stock will be available for distribution work to improve rural flocks along winter egg-production lines.

The demand for baby chicks from bred-to-lay stock is increasing rapidly, the demand during the past season being far greater than could be supplied by the poultry department with the present number of breeding stock and incubation capacity.

Investigational Work—A number of research projects are under study at present, only one having been completed during the past year. Among those under study at present are the following:—

1. A statistical study of mortality in chicks from pullet, yearling and two-year-old dams.
2. A biometrical study of the progeny test.
3. Seasonal variation in egg production in the bred-to-lay Barred Plymouth fowl.
4. Seasonal variation in egg production in the bred-to-lay S. C. Rhode Island Red fowl.
5. The value of dried brewers' yeast in chick feeding.

Research Publications—

1. "Can sex in farm animals be controlled?" The Record of Proceedings, American Society of Animal Production, Annual Meeting, 1922.
2. "A system of pedigreeing poultry." The Agricultural Gazette of Canada, Vol. X, No. 1, 1923.
3. "The mechanism of heredity." Scientific Agriculture. January, 1923.
4. "Economic factors in fattening chickens." Scientific Agriculture. February, 1923.

5. "The relative value of the monthly distribution of egg production." Scientific Agriculture. April, 1923.
6. Experimental results in fattening chickens." Poultry Science, Vol. IV, No. 4. April-May,1923.
7. "Determinations of the dressed, drawn and edible percentage of various kinds of domestic birds." Scientific Agriculture. June, 1923.
8. "Early laying—its economic significance." Agricultural Gazette of Canada. May-June, 1923.
9. "Differential sex growth curves in Barred Plymouth Rock Chicks." Scientific Agriculture. October, 1923.

LITERATURE—Considerable literature has been circulated, including bulletins, leaflets, circulars and blue prints of buildings, appliances and trap-nests. During the past year a large number of blue prints of the improved Macdonald house, a colony brooder and laying house and a commercial laying house, have been distributed throughout Quebec.

DEMONSTRATIONS AND LECTURES—Demonstrations and lectures have been given at meetings of poultry associations, homemakers' and farmers' clubs. These dealt with the most important poultry problems.

More recently special demonstrations have been given in fattening and preparing poultry for market. Birds have been fattened, killed, plucked and dressed under direct supervision, and the supervisor has assisted in enabling many farmers to market their produce more efficiently.

SHORT COURSES—Each year, in February, the poultry department gives a free short course of a week's duration. These courses are intended to assist in supplying the demand for practical knowledge, combined with lecture courses on the more important phases of poultry culture The 1924 short course was a decided success, seventy-five students having registered. The interest shown by those attending this course was such as to indicate that the work put on was instructive and much appreciated. Many students stated that they would prefer a more extended course in the future, as one week gave them just sufficient to become rightly started in the work.

FLOCK CULLING AND SELECTION WORK—Special mention should be made of the flock culling work which has been carried on during the past two years by the extension man, Mr. C. E. Lampman, in co-operation with the poultry service of the Quebec Department of Agriculture. This work has created a widespread interest by the farmer and has proved to be a great factor in the production and keeping of higher grade laying stock. The work was carried on almost wholly with the individual farm flock, rather than just community demonstration. It has also served to create a closer contact between the farmer and the College departmental work. The culling of the laying flocks, followed up by the culling of the young stock, has resulted in a still further and most valuable piece of work—the co-operative marketing of cull hens and young stock. The results of the co-operative car-lot shipping work has also done much to educate the farmer to the value of proper grading of market stock and volume in securing better prices. The flocks selected for future breeding work were also reselected by the extension man the following spring, when those hens lacking in breeding value were discarded from the breeding pen, thus leaving only the vigorous and best layers as breeders. This results in a better class of young stock being raised each succeeding year.

This year, 1924, is being devoted to further culling and selection work, as well as to special stress being put on proper and better methods of rearing the young stock to get early maturity and production.

Veterinary Science

INSTRUCTION WORK, as shown in the College announcement, included courses in elementary physiology and veterinary science for the third year students in agriculture; and advanced physiology and advanced veterinary studies and poultry diseases for the fourth year students. A course in microbial diseases of animals has been given under the supervision of the bacteriology department.

EXTENSION WORK—The work in the breeding diseases of dairy cattle has been followed as in former years, by the use of herds in the locality. The phases

of this work which have received special attention were: the physiology of reproduction, and the male as a factor in the failure of breeding operations.

In the work with tests for the detection of the non-reacting tuberculous cow, and the latent reactor, outside cattle were employed as well as those owned at the institution. Since this is one of the subjects which the farmer is now vitally interested in, and the tests employed did detect some animals of the class mentioned, it should be of benefit to others.

RESEARCH—The study of "A sporadic outbreak in cattle simulating tetanus," has been completed. This disease caused the loss of a large number of cattle on one farm in eastern Quebec. The causal organism had been overlooked and confusing diagnosis had resulted. The organism was named *B. suberis*, since it was found in the cork brick of the stable, and in cork and cork products from various sources. The detailed report of the research work will be published in the journal of the American Veterinary Medical Association. A preliminary report appeared in the May, 1923, issue of the same publication.

PUBLICATIONS—The report of the results obtained from the study, "Eliminating tuberculosis from badly infected herds," has been published in the June issue of the Journal of Agriculture.

Two papers were read before the American Veterinary Medical Association in August, 1923, at the Montreal meeting, the subject of one paper being: "A sporadic disease of cattle, etc." the other being: "A challenge to the Veterinary profession," given in joint authorship with Professor H. Barton of the animal husbandry department. The latter paper was published in the April, 1924, issue of the journal of this association.

At the meeting of the Canadian Society of Technical Agriculturists, held at Guelph, Ont., the College Veterinarian gave a paper upon: "Our present knowledge of 'contagious abortion' and tuberculosis." This paper will be published in the official organ of the society.

School for Teachers

During the year 1923-24, more students were admitted to the various classes than were ever

admitted in the history of the training of teachers for protestant schools in this province.

Altogether 258 students were admitted to the classes, distributed as follows:—

Intermediate School class (172 registered)	171
First short course elementary class	28
Second short course elementary class	55
Kindergarten Directors' class	4
Total (259 registered)	258

This is a total of sixteen students more than the previous year which, in its turn, was a record one.

In addition to those students who were registered at Macdonald College, courses of training were held in Belmont Street School, Montreal, for Kindergarten Assistants, and at McGill University for High School Diplomas.

Furthermore, certain teachers who took their training in previous years, fulfilled their requirements for various diplomas and received them during the course of the school year 1923-24. This department, therefore, is in a position to give not merely the results of the present year, but also the number of diplomas issued to Protestant teachers during the year 1923-24:

FIRST CLASS HIGH SCHOOL DIPLOMAS:	
June, 1924	23
Deferred from previous years	7
FIRST CLASS INTERMEDIATE DIPLOMAS:	
June, 1924	131
Deferred from previous years	22
FIRST CLASS ELEMENTARY DIPLOMAS (with promise of an Intermediate Diploma on satisfying various conditions):	
(a) Supplemental examinations	5
(b) Certificate of successful teaching	21
(c) Age requirements	1
(d) Return to finish second half of the year	4
FIRST CLASS ELEMENTARY DIPLOMAS:	
First short course, December, 1923	25
Permission to teach	3
Second short course, June, 1924	45
Permission to teach	5
Elementary diplomas deferred from previous years	7
Kindergarten Directors diplomas	4
Kindergarten Assistants diplomas	4
Total	307

In addition to the provincial diplomas, students are required to take examinations for music certificates, with the following results:—

Intermediate tonic solfa certificates	11
Elementary tonic solfa certificates	45
Junior tonic solfa certificates	15
First grade staff certificates	45
Total	116

Strathcona certificates for physical training have likewise been awarded to those who passed the tests:—

Strathcona certificates, grade "A"	5
Strathcona certificates, grade "B"	125
Strathcona certificates, grade "C"	122
Total	252

During the course of the year the rural teachers have had demonstrations in the preparation of hot lunches for rural schools from Miss Poole, a member of the staff of the School of Household Science. Demonstrations in ungraded rural school work have also been given by Miss Price and Miss Fowlie, who are both expert in this difficult type of work.

This department also wishes to express its indebtedness to Dr. Silver, Superintendent of Protestant Schools of Montreal, who makes effective arrangements for practice teaching, not only for Macdonald students, but also for undergraduates and graduates of McGill University.

During the year there were no staff changes, but it is gratifying to record that Mr. A. R. B. Lockhart obtained his degree of Master of Arts from Columbia University as the result of post-graduate work.

This department regrets to state that Mr. J. E. McOuat, B.S.A., who has been a member of the staff for several years, and who has been connected with the institution as student, demonstrator and lecturer for the last fifteen years, has resigned his position as lecturer in nature study to become the principal of Kenogami Intermediate School. While regretting his resignation, all wish him success and prosperity in his new sphere.

This year the burden of training such a large number of teachers has been very heavy, the classes have been unduly large, and has required unprecedented effort on the part of the staff to keep the work efficient. An addition to the staff is absolutely necessary in order to cope with the work of the continually increasing numbers and maintain the efficiency of the training. The number of students, though large, is not nearly adequate for the needs of the province and we must continue to look forward to ever-increasing numbers for many years until we can supply every school with qualified teachers without importing trained teachers

from other provinces or from Great Britain, and without having large numbers of unqualified teachers without diplomas, filling positions in the rural schools.

It is the public duty of the head of the School for Teachers to impress the educational authorities of this province and the Governors of Macdonald College with the necessity of making provision for staffing the school adequately and accommodating students who seek courses of training for Protestant schools of the Province of Quebec.

The head of the School for Teachers wishes to thank the members of the staff for their loyal and hearty co-operation, Miss Philp and Dr. Harrison for assistance from themselves and from members of their staffs during the year.

Regarding COURSE OF STUDY. As the course of study and the arrangements of time are both subject to the authorization of the Teachers Training Committee and the Protestant Committee of the Council of Public Instruction, there have been no alterations during the year.

RESEARCH—There has been no research undertaken in the School for Teachers as all of our activities are confined to training our students to be good teachers in the province. Our methods are being continually subject to revision, due to experience and the results.

There have been no publications since September, 1922, outside of magazine articles and newspaper contributions, as for example, "The school problem in Montreal," by the head of the School for Teachers in January, 1924.

Regarding proposed future policy, attention is drawn to the policy initiated last year in having summer schools, not only for drawing, but for principals and others connected with superior schools. It is hoped that arrangements can be made whereby these can be financially supported and continued.

SCHOOL OF HOUSEHOLD SCIENCE

One hundred and seven students registered in the School of Household Science during the year.

In addition, classes in sewing have been conducted with the elementary students in the School for Teachers, two periods weekly from September to January, and one period from February to June.

Also classes have been regularly held for high school girls in grades VII-X inclusive, two periods weekly, thirty-seven pupils being registered this year from these grades.

Lack of sufficient residence accommodation has again been responsible for lessened attendance, particularly in the three months' courses, dormitory space for six students being all that was available from January to June.

A noticeable feature in registration is the increase in the number of students entering the professional courses, i.e., the B.H.S. and institution administration.

Regular work in all subjects was carried on throughout the year. The senior students catered for various functions held in the school, such as a luncheon for delegates attending Pomological Convention, annual luncheon of the Ste. Annes Women's Club, valentine tea, etc. B.H.S. students carried on investigational work in cookery, in such problems as determining the grades of rice, prunes and oranges having the best flavour and being the most economical in cost and food value; comparing commercial and home-made soups, salad dressings, etc., as to cost, food value, appearance, flavour and time of preparation.

Senior administration students, in co-operation with the horticulture department, carried out a series of tests in cookery with varieties of apples grown in Quebec to determine the uses for which the different varieties were best adapted.

Tests were also made with various types of glass preserving jars with the object of determining the type most satisfactory for the woman canning at home.

Classes in textiles and clothing held several exhibitions of their work during the year. Laundry and housewifery classes carried out experimental work in the use of mordants for setting colours, the re-dyeing of fabrics and the home renovating of furniture.

On May 30th four graduates of the four-year course had conferred upon them the degree of B H.S. at McGill. Specialists certificates for the teaching of household science were awarded by the Quebec Department of Public Instruction to these graduates and also to the class of 1923.

On Closing Day, June 4th, fourteen graduates of the 1924 class in institution administration received certificates for completion of the course, and nine former graduates were awarded diplomas for having completed satisfactorily six months' work after graduation. Seventeen in the homemaker course and sixteen in the various short courses received certificates for having successfully completed the prescribed courses of study. An exhibition of the work of the various departments was held.

In the extension department thirteen new branches of the women's institutes have been organized and short courses in cookery, dressmaking and millinery, held as follows:—

7 courses of one week each.
24 courses of one day each.
2 courses of two days each.

In addition to the above, Miss Roach attended and addressed sixty-six meetings, and a convention, at New Carlisle, of the Gaspe Coast branches. Miss Poole gave thirty-nine demonstrations. Four county fairs and fourteen fairs were attended and judged at. A short course was given, in March, at Quebec City, by Miss Poole, for the Imperial Order of the Daughters of the Empire, at which there was an average attendance of twenty-eight.

A convention of all the Quebec institutes was held at Macdonald College, June 10th-12th, 1924.

F. C. HARRISON,
Principal.

ROYAL VICTORIA COLLEGE
ANNUAL REPORT, 1923-24

STAFF.—There were in residence in addition to the Warden Miss C. Lichenstein, Vice-Director of the Conservatorium and Professor of Music, Mlle. Lucie Touren, Assistant Professor of French, Miss C. Edwards (A. B. Vassar, 1923), Post Graduate Student and assistant in the Department of English; Miss Joan Foster, B.A., 1923, Post Graduate Student in the Department of History, and the Housekeeper, Miss Maud Paterson.

At the close of the Session the College lost the services in Residence of Mlle. Touren, or her marriage, but happily her connection with the College as a teacher is to continue as she retains her appointment in the Department of Romance Languages. Since her appointment, 1918-1919, Mlle Touren has identified herself in the closest way with the interests of the College, her good judgment, rare understanding and whole-hearted devotion have been invaluable in its administration and particularly in the resident life of its students where the loss of her presence and support will be severely felt.

Miss Lichtenstein has been appointed to represent the Faculty of Music on Corporation.

Mlle Touren gave a short series of lectures for the Department of French of Wilson College, Chambersburg, Pa., and also addressed the Alliance Francaise, of Toronto.

The Warden attended the annual Conference of Deans of Women of Universities, Colleges and High Schools held at Chicago.

LIBRARY.—There has been a notable increase in the use of the Library, affording, it is hoped, some relief to the Redpath Library and Reading Room. All new students were initiated into the use of the Library at the opening of the Session and care has been taken to supply and make easily accessible as many as possible of the books required in connection with various courses. The Library equipment has been improved by the provision of additional shelf space for new books; and special standard cases to house dictionaries, same of which have been recently acquired, e.g., the New English Dictionary donated

by Mr. Francis McLennan, M.A., LL.D., the Dictionary of National Biography and others.

STUDENTS.—Two Hundred and Thirty-Seven (237) undergraduates, of whom forty-three were in the Fourth Year, fifty-one in the Third, fifty-one in the Second, ninety-two in the First, and fifty-seven Partial Students, were registered in the College. Forty-one students of the Fourth Year graduated in May, two being unable to take their examinations owing to illness. Of these forty-one graduates, thirty-four obtained the degree of B.A., three B.Sc., two B.Com., two B.H.S. Twenty-one obtained Honours, including nine full First Classes, the Henry Chapman Gold Medal in Classics, the Hiram Mills Gold Medal in Biology, the Penhallow Prize, the Alliance Francaise Silver Medal. Twenty obtained the ordinary Degree, one obtaining a Special Certificate for Distinction.

The Undergraduate President was Miss Phyllis Murray, of Quebec City, the first I.O.D.E. Undergraduate Scholar, who obtained the degree in May with First Class Honours in English.

Of the eighteen women registered in the Faculty of Graduate Studies and Research twelve were former students of the College, graduates of McGill. Of the latter four presented themselves for the degree of M.A. and were successful; one, Miss W. Kydd, has been awarded a Caroline Wirscheaffer Fellowship of Bryn Mawr College.

RESIDENCE.—The fifty-two study bedrooms were occupied throughout the year, there being in residence eight of the 4th year, twenty in the 3rd year, twelve of the 2nd year, twelve of the 1st year, whose homes were in the various provinces of the Dominion and elsewhere, as follows:—P.E.I., 5; New Brunswick, 4; Quebec, 22; Ontario, 13; Alberta, 1; British Columbia, 4; U.S.A., 3.

The House President was Eileen Basken, of Ottawa, who obtained her degree in May with First Class Honours in Chemistry.

At the close of the Session ten students withdrew on graduating, two for family reasons, ten withdrew owing to failure in the sessional examinations of whom eight will return to the College, but cannot return to

residence. Under regulations now in force no room is reserved for the succeeding session for a student whose record in the Sessional examination is insufficient to entitle her to advancement to the next academic year. Such students cannot make good their standing until the September Supplemental Examinations, meanwhile their qualifications are in doubt and they may fail. During the spring and summer new applications of fully qualified students exceed the number of vacancies and a waiting list of: (a) new fully qualified students; and (b) students who may complete their qualifications in September confront the College with the problem of finding suitable accommodation outside of the residence.

STUDENT'S SOCIETIES.—The various societies have had a year of great activity. The Delta Sigma Society sent representatives to Kingston to meet the Women Students of Queen's University in debate. The Athletic Association sent its Basketball Team to Kingston to meet the teams of Toronto and Queen's Universities.

Some time ago the Royal Victoria College Undergraduate Society, conscious that women students had lately been entering other Faculties and Departments of the University (Medicine, Dentistry, Pharmacy, 1917; Law, 1919; School for Social Workers, 1919; School for Graduate Nurses, 1919). School of Physical Education, 1920, invited representatives of all the above faculties and departments to a conference to ascertain whether there was any demand for the formation of an inclusive Women Students' Society, and for some arrangement by which the Royal Victoria College Societies might be made generally available, if desired. Little interest was taken for some time, but in 1923-24 the committee of representatives was re-summoned and it was decided to ask Corporation to authorise the formation of a Women Students' Society. A constitution was drawn up and submitted to the Principal and with his approval presented to and adopted by Corporation. It is hoped that during the Session 1924-25 the financial and other details of such a Society may be worked out and the constitutions of the R.V.C. Societies may be revised to the satisfaction of all concerned.

The formation of a Women Students' Society will bring into prominence the need in the University for a Women Students' Union House where all women students of the University can meet. This and a women's gymnasium it may be hoped is a dream to be realised in a near future.

OTHER USES OF THE COLLEGE.—The College has again afforded the hospitality of its class rooms to the Faculty of Music; the Extension Department of the University for classes in French Conversation and on the French Novel, and in Social Service; lecture room, office, gymnasium and dining room accommodation to the Department of Physical Education including the use of all these by the School of Physical Education.

The whole resources of the building were again placed at the disposal of the French Summer School (July, 1923) for four weeks, all classes being held in the College, dining room facilities being afforded to all students, men and women, whether in College or in other residences, making with the staff a total of about 140. It is much to be desired that every effort be made to attract to the French Summer School R.V.C. students and graduates and other Canadian students and teachers.

The Alumnae Society held as usual its monthly meetings, under the presidency of Miss May Idler (B.A., '05) including two evening receptions when addresses were given by distinguished visitors, Signora Borghese of Rome and Miss Virginia Gildersleeves, Dean of Barnard College, Columbia University, who has since been elected President of the International Federation of University Women at the Annual Conference held at Christiania, where Mrs. Walter Vaughan (nee Cameron, 1895), President of the Canadian Federation of UniversityWo nen who represented the Alumnae Society. The Alumnae Society with the help of members of the University Staff gave two performances of Diminutive Dramas in the College Hall. The Hall was again in use for a variety of University purposes. The usual Staff recital and three Orchestral Concerts of the McGill Conservatorium of Music have been held as usual. Convocation was held on Founder's Day and a special Convocation to confer the Honorary Degree of LL. D. upon Dr. Nansen who

thus inaugurated his visit to Canada on behalf of the League of Nations and to whom a special reception was tendered by the College. The farewell presentations to Vice-Principal Mr. L. W. Adams were made in the Hall at the close of the Service.

Other University Lectures included Bliss Carman, Count Apponyi, Count de Prorok, Dr. Wace, Prof. Wm. McDougall of Harvard for the McGill Psychological Society, Mr. G. M. Trevelyan for the Dept. of History. Three public lectures were given by Professor Williams and two by Professor Waugh of the History Department; three lectures were given under the auspices of the Alliance Francaise. Dr. Grenfell, Dr. Ami and Mr. Calder, K.C., addressed the Students' Canadian Club and two performances were given by the McGill Glee Club.

CONCLUSION.—It must again be recorded that the first and outstanding need of the College is increased accommodation for resident students, with better cloakroom conditions for non-resident students.

In the absence of the former, students are being lost to the College and Faculty of Arts. In the case of the latter the conditions are aggravated by the partial accommodation in the College of other Departments of the University, and would be largely remedied by the withdrawal of the latter to premises suited to their own needs.

ETHEL HURLBATT,
Warden.
September 30, 1924.

FACULTY OF MEDICINE

During 1923-24 the Medical Faculty enrolled 652 students, a number considerably lower than in the immediately preceding years. This diminution arises not alone from the limitation of our entering students to 100, but more largely on account of the relative diminution in number following upon the excessive enrolment of students after the war.

A number of changes have occurred in the Faculty during the past session, involving the general policy of the Faculty, its personnel, its curriculum and its buildings.

Policy

1. The duration of the course required in the pursuit of medical studies has been definitely fixed to a period of five years, and the scope of work demanded during that time has also been more accurately defined.

2. The requirements for entrance to the Medical School have been somewhat altered, necessitating two years' study in the Faculty of Arts, or an equivalent, including the subjects of Biology, Physics and Chemistry, inorganic and organic. While these arrangements do not accord with those of former years, the course is nevertheless in no sense lengthened, but its internal arrangement has been modified, as described.

3. Certain options have been accorded to honour students in the final year during the month of April, thus allowing a slight amount of latitude for both students and teachers. It has been arranged that these options will coincide with a short, intensive post-graduate course.

4. It has been definitely decided that, in addition to the many opportunities already offered to graduates, a special post-graduate instruction, lasting four weeks, shall be given during the month of April. While this course will be given in clinical subjects chiefly, it is intended that the teachers shall present the more scientific, modern aspects of their subjects to graduates, in order that they may thus easily review the advances in medicine.

5. The Medical Library—The administration of the Medical Library has now been merged with the general University Library, although, from the technical standpoint, the Medical Library still preserves its integrity. This, we believe, is to the advantage of both parties concerned.

The rooms set apart for the reception of the Osler Library are now completed and merely await the arrival of this collection. While it is sincerely regretted that there will be another year's delay before these books can be placed on the shelves, yet it is indirectly to the advantage of the University that when this library arrives it shall have been catalogued in so complete a manner as to render it one of the greatest assets of its kind to any university.

6. The Museum—In view of the completion of the Pathological Institute, it has been considered wise to reconstruct the general policy with reference to the Pathological Museums. For purposes of teaching pathology and the medical sciences generally, it is considered important that attached to every teaching hospital there shall be a teaching pathological museum within its walls. For that reason it has been decided to draw upon the central Museum in the Medical Building for all such specimens as may be of use in teaching the simpler pathological conditions, and place these in the museum of the Pathological Institute. These specimens, however, will only be on loan, and will be returned when it is possible from the material in the hospitals to replace them by duplicates. It is considered wise to still preserve the general integrity of the Museum in the Medical Building as a centre in which pathological specimens may be exhibited and studied. It was thought that any extensive change in the general policy of the Museum would be an expensive and needless undertaking.

7. Department of Experimental Medicine—For some years there has existed in the Medical Faculty a Department of Experimental Medicine, operated in the Central Medical Building. For the most part this work has been conducted by the surgeons in the study of surgical problems. With a view to enlarging the scope of this department., as well as in the hope that the Department of Physiology might be considerably helped, it was decided that the whole

Department of Experimental Medicine should be placed under the supervision of the Professor of Physiology, and that he be given five junior assistants who will carry on work in this department, working both in the physiological laboratory and in the wards of the hospitals on experimental problems. No extra expense is involved to the University through this procedure, inasmuch as the Cooper Fund will be available next year for this purpose and will cover the expense of personnel.

8. Department of Medicine—Through the co-operation of the Royal Victoria Hospital and the Rockefeller Foundation, the University has been enabled to establish a University clinic, and has, for the time being, adopted the policy of a full-time Chair in Medicine. While all parties concerned recognize the fact that such an undertaking is largely of an experimental nature, it is felt that a great deal of advance can be made by attaching a better organization of the Department of Medicine, a better teaching staff and an increased production of scientific work and research. This change of policy was adopted only after a great many conferences with educational authorities on this continent, and it is generally conceded that its adoption of this policy is an epoch-making event in our Faculty.

While the Royal Victoria Hospital will be the seat of the University clinic, it is not intended in any way to minimize the importance of other affiliated hospitals connected with the Faculty.

Personnel—In accordance with the revision of the statutes, the Faculty of Medicine has been considerably enlarged, including as it does, all Professors and Associate Professors on active service on the teaching staff. It has further been decided to concede the privilege of sitting on the Faculty to all those who are directors of clinical sub-departments, thus bringing the total number of members up to 38.

During the past session the Faculty has suffered grievous losses by the death of some of its most useful and respected members: Dr. J. W. Scane, Assistant Dean, Dr. J. W. Stirling, Professor of Ophthalmology; Dr. A. E. Garrow, Assistant Professor of Surgery, and Dr. E. C. Levine, Demonstrator of Surgery.

The office staff has also sustained another sad loss in the death of Miss Brand, an invaluable assistant in the office of the Dean, and one whose intimate knowledge of the affairs of the Faculty and whose helpfulness to the students will long be remembered.

The resignation of Dr. Armstrong as Dean and Professor of Surgery was filled in the first instance by Dr. C. F. Martin, while Professor E. W. Archibald was called to the Chair of Surgery and appointed director of the department.

Dr. Hutchison's resignation as Professor of Surgery, representing the Montreal General Hospital, was filled by Dr. A. T. Bazin, while Dr. E. M. Eberts was appointed Associate Professor in the same department.

Two other professorial appointments have been made in the Department of Surgery, Dr. W. L. Barlow and Dr. C. B. Keenan having been promoted from Lecturers to Assistant Professors.

Dr. H. B. Cushing, who has for more than a year directed the teaching of Paediatrics, has been appointed a clinical professor in that subject.

Professor J. C. Simpson, who was temporarily appointed to fill the position rendered vacant through Dr. Scane's illness and subsequent decease, has formally been appointed as Secretary of the Faculty.

At the end of the present session Dr. Finley resigned his Chair as Senior Professor of Medicine and as representative of the General Hospital in that department. Professor Jonathan C. Meakins has accepted the post as his successor and has resigned the Chair of Professor of Therapeutics and Clinical Medicine in Edinburgh to come to McGill. Dr. Meakins will be Director of the Department of Medicine and chief of the University clinic at the Royal Victoria Hospital.

Dr. C. Palmer Howard, formerly Professor of Medicine in the University of Iowa, has accepted the Chair of Medicine, representing the General Hospital.

BUILDINGS—The outstanding feature in the building equipment of the Medical Faculty is the completion of the Pathological Institute, a laboratory which houses not only Pathology and Bacteriology, but also the Department of Medical Jurisprudence and laboratories of research in the various subjects allied to Pathology. It is a satisfaction to report that this

building, which has been inspected by many pathologists of note, is recognized as one of the finest of its kind on the continent. At the opening of the next session the students will receive their instruction not only in the subjects outlined above, but the classes in clinical microscopy will also be held in this building.

The space in the central Medical Building vacated by the Department of Pathology is now being given over to the Department of Histology, which has been very seriously impeded in its work through lack of accommodation.

In the Department of Hygiene radical changes are necessary to bring this department up to an efficiency equivalent to that of most of the other departments in the Medical Faculty, while in the Department of Psychiatry more opportunity is necessary both for clinical material for the students and satisfactory teaching staff. Without Psychiatric Wards attached to the general hospitals it is impossible to do justice to this subject, and it is hoped that in the near future something may be done to relieve this unsatisfactory situation.

C. F. MARTIN,
Dean.

FACULTY OF ARTS

All statistical information of any serious significance has already been returned for this Faculty in the fiscal estimates for next session, 1924-25. There are, however, a few matters of internal policy which may be touched upon in this annual review. It should be noted at the outset, also, that the present writer has occupied this office only since the first of January last and that it is, therefore, far too soon for him to venture opinions written in any attitude of authority or finality. On the other hand, it is clearly never too soon to attempt to stimulate interesting and profitable discussion on questions of great importance to this Faculty and to the whole University.

"1927"

The number of students who entered the first year in the Faculty of Arts in September 1923 was 343. The returns from the mid-sessional examinations, held in January 1924 showed that of this number 131 passed successfully in all subjects and 212 were conditioned in one or more subjects. Of the number so conditioned 36 were sent home on the ground that there was no appreciable hope that they would be able to complete their year's studies successfully enough to allow them to enter the second year at the beginning of next session. Notwithstanding the number so retired, however, the returns for the final examinations in May 1924 showed that of the number, viz., 307, allowed to continue their studies, 103 passed successfully and 204 were conditioned as before. If statistics recently compiled by this office, covering the last few years, be any index, then it is safe to predict that of the whole number, viz., 343, mentioned above who entered the Faculty at the beginning of the first year, very few more than one-half will ever reach the goal of their ostensible ambitions and be awarded a University degree. These few figures naturally suggest some interesting questions. Why so many conditioned students? Why this wastage? From what I have been able to learn I feel assured that the answer to these questions is not to be found in the undue severity of the examination tests.

The McGill examinations are the usual sound standard tests adopted by all first-class universities. These figures, moreover, are not peculiar to McGill. I have before me some similar figures from other universities even more suggestive than those I have stated. I am convinced, therefore, that the answer to these questions must be found in some other direction.

Matriculation

I have always thought, and I still persist in thinking, that the Universities of this continent made a distinctly retrograde step when they abandoned the old Matriculation examinations, conducted solely under the direction and auspices of the University and began the practice of adopting the High School leaving certificates, or even in some cases the certificates of accredited schools, in lieu of these examinations. The result is that a large number of students, especially in the cities, who manage to successfully pass the High School examinations in the spring, having nothing better to do, drift into the University in the autumn. I cannot help feeling that the University is doing a poor service to the community by entertaining these drifters at all. Life is a devotion and not a drift, and some serious sense of that ethical principle is the very first credential which every student must possess in order to entitle him to enter the University. It seems to me, therefore, that every student who matriculates into the Faculty of Arts should be required to pass some test sufficient at least to prove the presumption that he realizes the importance of the principle I have just named, and that he is, in fact, moved by some distinct will to achieve a creditable liberal University education. I will not go so far as to advocate an immediate return to the old practice, but I venture to suggest that every student who enters the University in the autumn should be required to reach a higher standard in his final examinations in the spring than is ordinarily called for in order to entitle him to the conventional High School leaving certificate, or, possibly, he might be required to pass successfully on some additional papers of a more severe type set for him by the University examiners, which he might undertake either in the spring or in the autumn, at his option The practice now adopted by many univer-

sities of only admitting so many students of higher grade as they can conscientiously accommodate may also be worthy of some consideration.

Pre-professional Students

The practice has been adopted recently by most first-class Universities on this continent of requiring all students to successfully complete one or more years in a Faculty of Arts before being admitted to study in the professional faculties. In McGill at present, two standard years in Arts are required of all students entering the Faculties of Medicine, Law and Dentistry, and most of the work done in the School of Commerce is really done in the Faculty of Arts. At some of the more ambitious Universities, at Harvard, for instance, the candidate is only admitted to a professional faculty if he already holds a Bachelor of Arts degree or its equivalent, and I think that it may be safely said that this very high, although, perhaps, too arbitrary standard is at least encouraged at McGill. In any case the numerous double degree courses which have been instituted in this University in recent years tends to point in that direction. Now there is one implication in this practice which is, indeed, very gratifying to those of us who have always believed in the virtue of a liberal education and that is the implied recognition that the Faculty of Arts is the base and foundation of the whole University plan, the trunk and stem, and the chief support and life of the whole University system. The benefits of an education in the liberal arts and sciences are usually too remote to be seen by the short-sighted, but like all other human virtues they always succeed in proving their real value in the end by the cruel test of human experience. On the other hand, this gratifying implied recognition is not without its attendant disabilities. For one thing, I imagine, that the average class-room attainment of the pre-professional student registered in Arts for two years only will tend to fall some distance below the average attainment of the regular student working towards an Arts degree. In any case, when we add to the large number of these pre-professionals, the perhaps equally large number of drifters to whom I have already referred, it at once becomes apparent that the class-rooms in the

Faculty of Arts must become badly overcrowded, the average class-room attendance raised far above the unit of greatest class-room efficiency, the average level of class-room attainment seriously depressed and the just claims of the goodly company of *bona fide* students proceeding towards a degree in the pure Arts and Sciences dangerously affected in every way. The only other possible alternative or, in other words, the only way to avoid these obvious dangers is to increase the accommodations and resources of the Faculty itself sufficient to enable it to successfully discharge these added obligations to its own staff and students and to the whole University.

The Doctrine of Student Activities

In ye olden days, students used to be admonished not to spend too much of their time in sedentary studies but to give some time and attention to the mock parliament, the debating and literary societies, the gymnasium, the athletic teams and the various forms of student activity usually found in all well-conducted universities. It used to be thought, I apprehend, apart from the claims of healthy bodily exercise, always admittedly sacred, that close contact between student and student, and between the student and that impersonal but nevertheless spiritual entity, the university itself, was of more importance than close contact between the student and his book or his test-tubes or between the student and his professor or tutor. It may possibly be, however, that, at the present time, the pendulum is swinging, or has already swung, much too far in the opposite direction. In the large modern university where all the faculties and colleges are federated into a single organization, and where both men and women students are admitted in large numbers on equal terms, the number and complexity of these student activities are greatly increased. What with the student press, the student union, amateur dramatics, the multiplication of student sports, and the rapid rise of student fraternities and sororities, the problem has become distinctly interesting, not to say serious. In any case, if these observations be in any way suggestive, it is clear that the fault is not with the student but with the institution. What appears at first to be

merely a case of student frivolity turns out, upon more careful inquiry, to be nothing less than a very fine example of student loyalty to his *Alma Mater* and a very noteworthy desire to cheerfully perform all the obligations incident to membership in a university community. At any rate, some students have said to me during the short time I have been in this office that they have found that the obligations they have undertaken have sometimes, indeed, been actually forced to undertake, in these numerous student activities, have subtracted far too much from the time and attention which they wished to devote to their serious studies. Trust the student! It is a good motto. Possibly it might be advisable to have the student body create a commission of its own to inquire into and report upon this whole question of the relation between studies and student activities.

Some Correctives

The preceding paragraphs may, perhaps, offer some answer to the questions raised at the beginning of this report. The blame is sometimes put upon the high schools, but this is unjust as the high schools labour under the same disabilities as the universities, only often in an aggravated form, and we must never forget, also, that we owe the good, as well as the poor, student to the high schools. It is the duty of the University, in any case, to find its own correctives. I have already suggested some of these correctives, but there is one other method which may, perhaps, be specially mentioned. I refer to the method of teaching large classes in sections. These sections may be formed in three ways: (1) The different sections may be formed by lot, alphabetically, for example, without respect to either the student's ability or ambition. (2) They may be formed on the basis of ability, i.e., graded according to the students' standing at the preceding matriculation or mid-sessional examinations. (3) They may, lastly, be formed on the basis of the student's professional ambitions. All these methods have the advantage of reducing large classes somewhat nearer the unit-number of maximum class-room efficiency. The second method has the additional advantage of permitting the more advanced students to make more

rapid progress in their subjects and so to qualify adequately for special or honour courses. The third method, by forming the pre-professional students into one or more separate sections of their own, offers the additional advantage of allowing these students to point their studies in the Faculty of Arts more definitely in the direction of their subsequent professional studies. The ultimate result of this last method would be the organization of a Junior Arts College, with courses of study and classes of its own. In the past the first method has been used in this Faculty. Next year a beginning will be made with the second and third methods.

It is sometimes suggested that tutors or preceptors should be employed to assist backward students. Personally I should much prefer to see these tutors or preceptors devote themselves to the best and not to the poorest class of students. There is always a great lot of pother about making the universities democratic and open to all who care to come. This is not democracy: it is despotism. A university education is not for all, but only for all who have the ability and the ambition to achieve it. The democratic ideal in education, as in everything else, is not equal distribution to all but equal opportunity to all in proportion to capacity. In fact, the whole method of levelling down by teaching in squads, so much overdone everywhere on this continent, is fundamentally false to democratic ideals. We aim at an average and naturally, therefore, succeed only in striking a low average. the only result is the unpardonable sin of depriving ourselves of our providential supply of promising leadership in the community. When adequate educational opportunity is brought within the reach of all who desire it, all will be done that can be done. Admittedly, too, our present civilization is very far indeed from achieving this objective. In the meantime, however, no progress can be made in this desired direction by debasing the currency or by offering counterfeit when real coin is called for.

Some Internal Economies

There is one cardinal difference between the administration of profit-bearing institutions, on the one han , and public-service institutions on the other

hand, which is always more or less uppermost in the mind of educationists. The object of administration in profit-bearing institutions is the maximum of income and the minimum of expenditure, while the object of administration in public-service institutions is the maximum of present public service and the minimum of expenditure. Since, too, the university is probably the purest, freest public-service institution of them all, it follows that this difference is of great importance to all persons seriously interested in university affairs. The moment, then, this difference is once clearly recognized, it becomes apparent that very few economies can really be effected by the fiscal administration of a university. Indeed, the income, that is the total endowment, of a university for the time being is usually a fixed sum, and the problem then is how to apply that fixed sum, dollar by dollar, not this time to produce more dollars or even more commodities, but an ultimate human entity called education, upon which no money value can possibly be placed by any system of calculation known to finance. There is more truth than foolishness, perhaps, in the saying of a well-known educational critic that "No mere man can be head of a university." The trouble with this paradox is that the author, when he wrote it, was looking at the problem from a perverse angle. The real point is that, the difficult task of raising endowments being accounted for, all further economies must be effected by the efficient performance and careful correlation of the actual teaching and research work conducted by the Faculty. Even the course of appointments and appropriation is, in the long run, determined by the work of the faculty. Let us look then at a few examples of the type of internal economy I have in mind.

The Departments

There are two premises which I should like to suggest as a basis for all departmental appropriations. (1) The natural capacity of the student to entertain education is a fixed quantity for all departments. (2) All departments, i.e., all subjects of university education are, with a very few exceptions, of equal value. There is, in other words, no hierarchy of educational values in university teaching. If, then, these pre-

mises be substantially sound, it follows logically that, the necessary material equipment being accounted for, departmental appropriations on salary account should be made as near equal as is practical under the circumstances. There is no valid reason, for example, why $30,000 should be allotted to subject A and $5,000 to subject B. I am inclined to think that differences of this kind are almost a sure symptom of internal waste, especially in an undergraduate Faculty of Arts, designed as this Faculty is to uphold the claims of a liberal all-round education. I know that the scientific departments usually claim larger appropriations than the pure arts departments on the ground that they are carrying on research work. Nevertheless there is this clear gloss to be put upon this claim, and that is that undergraduate students do not carry on research and that the great claims of post-graduate research are by no means limited to the scientific subjects. If a student of Physiology may discover Insulin and save many lives, so may a student of Political Science or History become a Chatham or a Peel and save an empire or prevent a world-war. In any case that is the practical way in which an undergraduate faculty of pure Arts and Sciences should approach this problem.

How then can this departmental equality be loyally achieved? Only, I suggest, by sympathetic and generous interfaculty conference and co-operation. There is no more fatal wasteful error than the tendency to regard the different departments as so many distinct or rival entities. The policy of allowing the different departments to scramble for appropriations never has and never will work out successfully. The departmental professor is not only an employee, a specialist paid to do his day's work in the class-room or the laboratory and then be done with it: he is also, or at least should be also, a recognized member and officer of his university, interested not only in his own work but also in the work of his confrères and in the life and work of the whole institution. I see no reason, for example, why the Faculty of Arts at McGill should not meet regularly, not merely to dispose of minor routine matters, as at present, which I submit with deference might very well be left to the Dean and Secretary, but to discuss all larger problems of

university policy and methods of interest to its members. A beginning may be made in this direction next year.

Lectures

The lecture method is being subjected to a lot of criticism everywhere at present. It appears that the universities of this continent have been placing far too much emphasis upon this single device in teaching method. The ordinary lecture course is, after all, only a bare outline of its subject and no more resembles the original content of the subject itself than a map upon a wall resembles the original landscapes, seascapes and possibilities of human existence which it is supposed to represent. An education obtained in this way can only be of the most superficial character. Perhaps this is the real reason why university graduates on this continent cannot really, as a rule, be distinguished from other members of the community. The superficial gloss of education which they receive from lectures soon wears off in after life. Much better, I suggest, that the student should be sent to text-books, source-books, standard authors, archives and laboratories and that he should be examined upon the results of his own independent study from these sources and not from the contents of his lecture notes. The student should be sent to the sources. He should be directed where he may possibly discover new sources of his own. He should be brought into closest possible contact with the great original monuments of literature in art and science and so, not only be instructed, but inspired to think for himself in his chosen subject. The lectures are only sidelights or aids to study and never can, in the nature of things, be made more than that. We have got so much into the shameful habit to-day of compiling lectures from other lectures and books from other books that our university education has got so far away from the original sources and from the realities of things that we are going to find it very difficult to make our way back again to these real sources of education. Furthermore, a few real examples of scholarship and lucid thinking in lecture form are worth almost any possible number of routine lectures designed to cover a table of contents in so many hours a week. Frankly, I would

reduce the number of these routine lectures, especially in the more discursive subjects, to two-thirds or even one-half their present number. In any case, whatever real work the student can be got to do for himself is clear economic gain, and that is the only point I wish to make at present.

The Curriculum

The course of study in the Faculty of Arts at McGill designated "the ordinary" course, is excellently designed to meet the requirements of a liberal undergraduate education. Speaking generally, Latin, English and Mathematics, and to some extent History, French and one Science are compulsory in the first year. At the end of the first year the student is required to choose three subjects which he will continue for his remaining three years of study. The only fault which one can find with this course is that it seems a little too rigid and reactionary. Possibly the subjects in the first year might be reduced from six to five and the continuation subjects in the following years from three to two in number.

I sincerely hope that I may be forgiven if I cannot pay an equal compliment to what are designated "honour" courses. Indeed, it seems to me at present that these honour courses are designed to provide about as many easy exits from the ordinary course as there are departments in the Faculty. Some confusion seems to have arisen at some point in our history between what used to be called "honour" courses in Great Britain and those "special courses" resulting from the "elective" system in the United States, usually said to have been first inaugurated by President Elliot at Harvard. In any case with us the student may, at the end of his first year, elect to follow an honour course and so be permitted to confine nearly all his studies for the remaining three years to one or two departments. In some of these departments, as, for example, in my own department of Philosophy, he has never had any previous study at all. In any case there is no serious restriction except that the candidate must not have been conditioned in the first year in any subject in which he aspires to follow an honour course. The result of all this is, as may be easily foreseen, that two-thirds of the students

in the Faculty elect to follow honour courses, which is absurd. Moreover, results always lead to further results and the further results, in this case, are that the grade of work done in the honour courses is seriously reduced and the number of courses of study and the number of classes and lectures in the final three years greatly multiplied. Indeed, it is obvious if any considerable number of students elect to do nearly three-fourths of their work in the different departments, that all the departments will tend to increase their teaching staffs to three-fourths of the full complement of a whole university faculty. The final result is bad for the student, bad for the staff and bad for the exchequer. Far better, in this case, I suggest, that the student elect his honour course at the end of his second year and that the honour classes be limited to those students who have distinguished themselves during their first and second years sufficiently at least to entitle them to honourably rank as "honour" students. In this way the grade of work done in the honour classes might be greatly improved and, since all students in these honour classes would be more advanced, they might easily be allowed to carry on some of their studies in colloquia and seminars without the necessity of so much discursive formal lecturing. Indeed, since the advent of the post-graduate faculty in modern universities, it seems to me that a tendency should properly set in now to reserve these specially advanced courses for graduate students and that the undergraduate faculty should be mainly reserved for the purpose of providing a sound, conservative, broad-based, liberal education, which, after all, is the real purpose for which it was originally endowed. If the arguments I have tried to make in this paragraph be right, it is obvious that at least some useful economies can be effected by the renovation of these honour courses. Needless to say I may be wrong, but the point is that at present I cannot really see just where I am wrong.

"Old McGill"

I cannot really add anything to what Dean Gordon Laing has already reported touching the condition of the Arts Building. From what I have already said about the increasing number of regular Arts students

and the recent advent of the pre-professional, it is obvious that the number of students committed to the Arts Faculty will probably continue to increase rapidly, at least for the next few years. Frankly, the present Arts Building, "Old McGill," is inadequate, unsafe and unsanitary. We cannot really make any further visible progress until the building is reconstructed. It may, I think, be said with perfect fairness to all that this projected work of reconstruction should form a first lien on all further funds. The unit cost of education in the Arts Faculty is always so much lower than in any other Faculty, except perhaps the Faculty of Law, and the importance of an Arts education is, as we have already shown, so admittedly essential to the soundness of the whole system, that it seems perfectly clear that the first principle of successful economy in university administration must be based upon the adequate endowment of the Arts Faculty. There may be much truth in the old saying that "a University is a log with Mark Hopkins at one end and a boy with a book at the other." Add a few instruments of precision, out of compliment to modern science, and the figure is complete. But even Mark Hopkins and the boy with a book could accomplish little without sufficient room, fresh air and congenial surroundings, especially in a cold climate.

The time, I admit, does not seem opportune at present for an appeal to the general public, or even to our own graduates. The people of Canada are so heavily burdened with all sorts of levies at the present time! I have often wondered recently, however, if a quiet appeal might not be made to a small number of the more public-spirited and resourceful people of Montreal and elsewhere interested in McGill to dedicate each of them a sufficient sum to construct one lecture hall or other needed room, which each of them might memorialize to whom and in any way he might desire. The main entrance might contain a suitable tablet enumerating the chief events in the history of the old building, the façade of which, I understand, is to remain intact, and also suitably memorializing the donators of the new building.

All of which is respectfully submitted.

IRA A. MACKAY,
Acting Dean of the Faculty of Arts.

FACULTY OF APPLIED SCIENCE

The close of the session was marked by the retirement of Dr. Frank D. Adams, F.R.S., Dean of the Faculty since 1908. The services of Dean Adams to the Faculty are too well known and appreciated to require further emphasis here. During his term of office the number of instructors of all ranks in the Faculty increased from seventy to eighty-five; the number of those of professorial rank from twenty-five to forty-three. The number of students in attendance increased from about 595 in 1908 to a maximum of 675 in 1921, and for causes which seem to have affected the attendance of most of the engineering schools in a similar way, reacted to 453 in the session of 1923-24. It may be anticipated that the number of students will not again increase rapidly until industrial conditions have improved.

The opinion has indeed been expressed in well-informed quarters that the number of young men being trained for the engineering profession throughout Canada is greater than can be satisfactorily absorbed under present conditions. On the other hand, an increasing proportion of our graduates are entering on other than strictly engineering activities; and their experience seems to show that a sound engineering education, if not too narrowly technical, affords an unsurpassed training for the discharge of many of the most important duties relating to the conduct of affairs and to citizenship.

While there has been no general revision of the curriculum for many years, amendments, designed to meet the ever-changing requirements of professional work, have been made nearly every session. There is, nevertheless, a widespread feeling that the curricula of engineering schools generally do not afford the student a sufficient cultural background. On the other hand, as experience clearly shows, many of our students can carry no heavier burden than that already imposed upon them; while for the ablest students a little more time free from scheduled exercises for general reading and for reflection might be desirable. Our graduates have obtained an enviable reputation for the soundness of their scientific training, and it will not do to lower in any way the standard

which has led to that result. It, therefore, seems impossible to solve the problems involved in the above considerations without either demanding a more thorough preparation for admission to the Faculty or increasing the length of the course. The question is one which must receive early and thorough consideration.

The reports of several Departments are appended.

H. M. MACKAY,
Dean.

Department of Architecture

During the past year there were 34 students in the Department, an increase of twelve over the previous year. Three students graduated.

Mr. F. B. MacDuff, Year III, was awarded a travelling scholarship for the study of architecture in the Province of Quebec by the Province of Quebec Architectural Association.

Mr. Henry Sproatt, LL.D., R.C.A., and Mr. J. Cecil MacDougall, B.Arch., A.R.I.B.A., were appointed by the Royal Institute of British Architects as external examiners to the Department.

Under the present arrangement with the Royal Institute graduates of McGill University in Architecture are admitted to candidature as Associates R.I.B.A. on passing a special and limited examination.

A number of casts of mediaeval sculpture and ornament and several original examples of Georgian architectural woodwork were added to the museum.

An extension course on "The History of the House" was given by Mr. Traquair and Mr. Carless. It was well attended.

The Sketching Class visited Boston for the study of American Colonial architecture.

Publications during the year 1923-4, by members of the staff, include:—

Mr. Traquair:

"Frankish Architecture in Greece," R.I.B.A. Journal, vol. XXXI, 3rd series, Nos. 2 and 3. Reprinted for the Byzantine Research and Publication Fund, 1923

"Art Teaching and Drawing in Schools," Teachers' Magazine.

"Woman and Civilization," Atlantic Monthly, September, 1923.

"The Commonwealth of the Atlantic," Atlantic Monthly, March, 1924.

Mr. Nobbs:

"Wall Textures," The American Architect, N.Y., September, 1923.

"Architecture and Literature," Journal of the American Institute of Architects, N.Y., September, 1923.

"The Appreciation of Things Made to be Seen," Journal of the American Institute of Architects, N.Y., October, 1923.

"Architecture in Canada." (An address before the R.I.B.A., London, 21st January, 1924.) Journal of the R.I.B.A. (London), February, 1924. (Reprint) B. E. Exhibition, Canadian Section (London). (Reprint) Journal of the Royal Architectural Institute of Canada, No. 3, September, 1924.

"A Plain Talk on Game Conservation," Canadian Forest and Outdoors (Ottawa), February, 1924. (Reprint) Hunting and Fishing in P.Q., 1923 (Quebec).

"The English Tradition in Canada," Architectural Review (London), June, 1924.

"Town Planning." An address before the Union of Quebec Municipalities, June 20, 1924.

Mr. Thomson:

"First General Report of the Lignite Utilization Board." March 15, 1924.

Mr. Leslie A. Perry, who graduated from the Department last year, was awarded the travelling scholarship in Architecture offered by the Royal Canadian Academy of Arts and open to architects throughout Canada.

Department of Civil Engineering and Applied Mechanics

STAFF—Dr. Cyril Batho, Associate Professor of Applied Mechanics, resigned to accept the chair of Civil Engineering in the University of Birmingham. His work will, for the present, be divided between other members of the staff. R. S. Eadie, M.Sc., Lecturer and Demonstrator in Mathematics and Civil

Engineering, resigned to join the designing staff of the Dominion Bridge Co. He will be replaced by Alexander Campbell, B.Sc., an honour graduate and medallist of the class of 1924.

CURRICULUM—The course in Highway Engineering has been made obligatory for all Civil Engineering students. The course in Foundations has been extended in recognition of the increasing necessity for careful analysis in foundation work.

RESEARCH—Mr. J. S. Trueman, M.Sc., carried out an interesting investigation on the "Strength of Steel I-Beams Haunched with Concrete," supplementing the work done under the auspices of the department last year. Mr. L. S. McLennan, M.Sc., made a critical study of "Specifications for the Net Section of Steel Tension Members in the Light of Tests."

EQUIPMENT—The Highways Laboratory has been practically completed by the addition of equipment for testing the bituminous materials used in road construction. This laboratory is now an excellent one.

DONATIONS—Gifts of steel I-beams and fabricated structural steel for graduate research have been received from the Dominion Bridge Company, and from the Canadian Vickers Company, Montreal.

EXTENSION COURSES—A course of eight lectures on Highway Materials, accompanied by laboratory demonstrations, was given by Professor French. Ten men from various walks of life were in attendance, four of whom wrote and passed final examinations. The interest displayed is deemed fully sufficient to warrant the repetition of this course.

PUBLICATIONS — "Strength of Steel I-Beams Haunched with Concrete," H. M. Mackay (with Professor P. Gillespie and Professor C. Leluau), Eng. Journal, August, 1923; Can. Eng., July 10th, 1923.

"Education for Highway Engineers," R. DeL. French (two papers), Proceedings of Canadian Good Roads Association, June, 1923, and June, 1924.

Department of Geodesy and Surveying

The work of the Summer Surveying School was conducted during the month of May, at Ste. Anne de Bellevue, where the Men's Residence of Macdonald

College was again placed at the disposal of the Department for the accommodation of the students.

The number of students in attendance was as follows:—

Fourth Year	13
Third Year	32
Second Year	84

The thanks of the Department are due Macdonald College, Mr. Cleveland Morgan, and the Garden City Press, for the use of their properties in connection with the operation of the school.

A special Field School for students entering this Faculty from other universities will be conducted during the latter two weeks of September, with headquarters on the college property, Westmount Hill.

Department of Electrical Engineering

During the session 142 students were enrolled in the various courses offered by this Department.

A new short course in Elements of Electrical Engineering was begun for the benefit of the students in Mining Engineering.

A donation of $200.00 was received from the Montreal Light, Heat and Power Consolidated, to be used for prizes for students in Fourth Year Electrical Engineering.

The publications for the year consist of a paper on "Electric Power Transmission and Distribution in Canada," written by Julian C. Smith, E.E., LL.D., M.E.I.C., and Professor C. V. Christie, M.A., B.Sc., for the First World Power Conference, and a paper on "The Cost of Power," by Professor C. V. Christie, read before the Engineering Institute of Canada.

It is expected that considerable additional space will be provided for laboratories for the Department of Electrical Engineering during the coming year, and it is intended to extend the work of the Department chiefly along the lines of Electrical Measurements and Electrical Communication.

L. A. HERDT.

Department of Mechanical Engineering

There have been no important changes in the teaching staff during the past year.

The alternate course in Industrial Engineering, inaugurated last year, has been amplified and more than half the undergraduates in the Department are taking it. We believe that for students who propose entering the industrial field this course will prove most useful.

The Department has to thank Mr. D. Derrom for a valuable collection of lantern slides and moving picture films of shell manufacture. The Nash Engineering Co. presented the Department with a complete unit, ready for conducting comprehensive tests, of their vacuum pump. This gift is highly appreciated.

A few additions were made to the laboratories through purchase. An eight h.p. Petters Fuel Oil Engine, a Collins Micro Indicator for testing high-pressure high-speed internal combustion engines, and an electrical CO2 measuring device with electrical thermometer.

CHAS. M. McKERGOW.

Department of Metallurgical Engineering

The teaching staff consisted of Dr. Stansfield, Dr. Sproule and Mr. Roast, assisted by W. V. Faith, the Research Fellow. Mr. Roast and Mr. Jascoe conducted the extension course in Metallography.

The instruction continues to suffer from the lack of space for a satisfactory arrangement of the teaching equipment, and in view of the proposed new building it has not been considered worth while to make any extensive rearrangement in the present quarters.

A new course of lecture and laboratory instruction in Metallurgical Analysis was given by Mr. Roast and was highly appreciated by the students, who gain in a short time a thoroughly practical training in chemical analysis as used in smelting and other metallurgical works.

Two students, Messrs. W. V. Faith and C. R. Whittemore, proceeded to the M.Sc. degree. W. V. Faith made a research into the constitution of nickel-copper mattes, which was suggested by the manage-

ment of the British America Nickel Refinery. C. R. Whittemore made a technical research for a Montreal firm.

Dr. Stansfield gave two lectures on Electric Iron and Steel Making before the Carnegie Institute of Technology and opened a discussion on Electric Furnace Refractories at the Philadelphia meeting of the American Electro-Chemical Society.

In the session of 1922-23 a system of exchange lectures was inaugurated between the Professors of Metallurgy of Toronto, Queens and McGill, each Professor visiting the other two universities and giving two or three lectures on some subject to which he had given special attention. These exchanges have been found to be very satisfactory and were continued during the present session.

The Field School in Metallurgy was held as usual, about ten days being spent in visiting plants in Montreal and district, and in instruction by lectures and reading in the University. The class, in charge of Mr. Sproule, then visited a large number of smelting and refining plants in Ontario and Quebec provinces.

A. STANSFIELD.

June 11th, 1924.

Department of Mathematics

The curriculum and staff were as in the session 1922-23, the work being carried on by Messrs. Murray, Sullivan, Dodd, Eadie and Jamieson.

There were 125 students in the First Year, divided into four sections; 95 students in the Second Year, divided into three sections; 27 students in the Third Year, one section.

The death of Professor Harkness of the Faculty of Arts, on December 8th, 1923, necessitated some rearrangement of work and classes, and Professors Murray and Sullivan took over several classes in the Arts Faculty that had been under Professor Harkness.

For the immediate future no change is contemplated in the Mathematical part of the curriculum of the Faculty of Applied Science. Changes may be looked for, however, as experience and events may develop.

The unification of the mathematical staffs of Arts, Applied Science and Commerce that has recently been effected will result in closer co-operation in all the mathematical work of the University and perhaps some co-ordination of parts of the elementary work in mathematics in Arts and Applied Science may ultimately be effected.

PUBLICATION—C. T. Sullivan: "Concerning Certain Scrolls. The Asymptotic Curves of which are Cubics" (now in press).

RESEARCH—C. T. Sullivan: "The Determination of all Surfaces Characterized by a Reducible Directrix Quadric." (Paper read at the International Mathematical Congress; to be published.)

D. A. MURRAY.

FACULTY OF LAW

During the past Session fully the average number of students followed the regular course of Lectures in the Faculty and twenty-one were graduated with the degree of B.C.L., five received the degree of LL.B. All the members of the graduating class who wrote on the examination for admission to practise law in this Province, which was held in the City of Quebec in July, were successful.

The Committee appointed to consider the status of the LL.B. Course reported that, owing to conditions which need not here be touched upon, very few students in the aggregate had followed the Course, and that the prospects were not such as to justify its further continuance. This report was adopted by the Faculty with regret, and acted upon by the University authorities. The LL.B degree was abolished

Arrangements have been made for an advanced course in Constitutional Law, which all the undergraduates in Law may, at their option, attend There will also be an additional course in Roman Law, open to all the students of the Faculty In view of these changes the work of the Faculty will hereafter be confined to the course leading to the degree of B.C.L., to the advanced course just mentioned, and to such additional courses in particular subjects as may from time to time be arranged to meet special demands In view of the satisfactory result of the special Tutorial Course given to prepare students of the Final Year for the Bar examination, that course will be continued this year

During the coming Session "Moot Courts" will continued to be held at frequent intervals; the interest shown in the new institution last Session fully justifies its continuance and encouragement The policy of the Faculty is to replace afternoon Lectures by morning Lectures, and there will be only a few Lectures after noon time during the coming Session

R. A. E. GREENSHIELDS,

Dean.

FACULTY OF DENTISTRY

While nothing of a phenomenal nature has characterized the work of the Faculty of Dentistry during the past academic year, some things have occurred which make a distinct advance and for which we have reason to be grateful.

The vexed question of matriculation in the Province of Quebec has been settled, and settled in a manner which will, I am sure, be satisfactory, in the final analysis, to all concerned. Two years of university work, either in Arts or Science, is now necessary before entering on the four-year course in dentistry. This means that in six years a student may obtain a degree in Dentistry and also in Arts or Science. This will have the effect of giving us a better class of students, well prepared for future study and future life-work.

The new law governing the teaching of Dentistry in the province recognizes also the matriculation examination, set by the Board of Governors, of the College of Dental Surgeons of the Province of Quebec. This furnishes a means by which the smaller number, who cannot take the academic training necessary for matriculation, may qualify by study in a high school or academy, or even by private tuition, to enter upon a course in Dentistry.

An effort should be made by McGill University to see that all students in the Faculty of Dentistry should take the two years of University training. This additional two years' training would insure a very much better type of student and, in the long run, a higher class of service to the public.

The next problem with which we should deal is the question of post-graduate study as a preparation for research work. These questions have already been taken up with some of the senior members of the hospital staff, and their heartiest co-operation is already assured.

Some inducement should be held out to students who show marked ability and desire to pursue such post-graduate and research work. This matter is also under consideration.

During the approaching session we hope to simplify and at the same time very greatly improve the method

of conducting our examinations. We believe that this can be done with marked advantage both to the students and the University.

During the past year it has been the good fortune of the head of the department to attend a number of meetings, in the United States and Canada, and to discuss with the leading dental educators of America many matters pertaining to dental education McGill University should be able to make a worthy contribution towards the solution of some of the problems now confronting those engaged in this particular branch of professional education.

A. W. THORNTON,
Dean.

FACULTY OF MUSIC

While it is decidedly a matter for congratulation that the building in which the Faculty of Music has been housed for the last twenty years has, according to the wishes of the late Lord Strathcona, loyally carried out by his daughter, the present Lady Strathcona, become the property of the University, it is still to be regretted that the conditions under which the work of this Faculty have been carried on have remained unchanged since the publication of the previous session's report. In that report attention was directed to the advisability of certain structural additions, alterations and improvements to enable the Faculty to extend its influence still more widely in the field of Music. At the same time it can be unhesitatingly stated that during the session every effort has been made by both staff and students to maintain the high standard associated with the name of McGill.

The chief public events of the session were:—

November 15th, 1923.—Staff Recital given in the Hall of the Royal Victoria College, at which eighteen songs composed by Mr. Bryceson Treharne, a newly-appointed member of the staff, were sung by four professional soloists (Mrs. Duncan, Miss Denault, Mr. Merlin Davies and Mr. Porteous Jordan). Mr. Treharne contributed two pianoforte solos, besides accompanying the vocalists.

December 6th, 1923.—First Orchestral Concert, at which Beethoven's Symphony in C major, Cherubini's Overture "Medea," the Flower-Maidens' Scene from Wagner's Parsifal and two of Brahms' Hungarian Dances were the orchestral numbers. The soloists were Mr. Edwin Sherrard, Miss Ethel Lamplough and Miss Gertrude Nieghorn (violinists), Miss Bessie Hershorn (pianist) and Miss Mina McCreary (vocalist).

February 7th, 1924.—First Students' Recital in the Conservatorium Hall.

March 13th, 1924.—Second Orchestral Concert, at which the second and third movements of Glazounov's Symphony in F, Smetana's Overture, "The Bartered Bride," two movements from Messager's Suite "Les

Deux Pigeons" were played by the Orchestra. A special feature of the Concert was the first performance of an orchestral tone-poem composed by Dr. A. E. Whitehead, a member of the staff. A violin solo contributed by Miss Beatrice Gerson, a pianoforte solo by Mr. J. Cameron Taylor and a vocal recitative and aria by Miss Frances James completed the programme.

March 27th, 1924.—Second Students' Recital in the Conservatorium Hall.

April 10th, 1924.—Third Students' Recital in the Conservatorium Hall.

May 1st, 1924.—Third Orchestral Concert, at which the second and third movements of Brahms' Symphony in F, Dvorak's "Carnival" Overture, Hamish McCunn's Overture, "The Land of the Mountain and Flood," and a selection from Andrè Wormser's music to "L'Enfant Prodigue" were the orchestral numbers. Miss Olga Guilaroff (pianist), Miss Ethel Stark (violinist), Miss Esther Asner, Miss Marjorie Scane, Miss Lynne Elton and Miss Etta Pinsler (vocalists) were the soloists.

May 5th, 1924.—Fourth Students' Recital (Organ) in Christ Church Cathedral.

In addition to these, it should be mentioned that the Dean of the Faculty addressed the St. James Literary Society on October 30th, 1923, the Electrical Club Luncheon on November 21st, 1923, the Faculty of Music Undergraduate Society on November 22nd, 1923, and the McGill Men's Music Club on February 14th, 1924. By arrangement with the University Extension Committee he also gave from February to April, 1924, a series of fourteen weekly lectures on Music, which proved very popular and were largely attended. Other activities by members of the Faculty may be summarized as follows: Chamber Music Concerts by Mr. S. Brant (in conjunction with Mr. G. Brewer and Mr. Boris Hambourg), Oratorio performances of Handel's "Messiah" and Haydn's "Creation," conducted by Mr. Walter Clapperton, two series of Organ Recitals by Dr. A. E. Whitehead, and various public appearances as soloists by Miss R. D'Amour, Mr. A. Durieux (violinists), Miss Y. Lamontagne (violoncellist), Miss Margaret Bennett (vocalist), and Mr. Herbert (organist).

The first performance of a tone-poem entitled "Hereward," at the second concert given by the orchestra on March 13th, 1924, fully demonstrated the fine musicianship of the composer, Dr. A. E. Whitehead, a member of the Faculty.

Owing to family bereavement, Miss Edith Johnson resigned her post as Instructor in the Pianoforte at the end of the session. Mr. Bryceson Treharne, a well-known composer, who for some years was connected with the University of Adelaide Conservatorium of Music in Australia, and also with the University of Wales Department of Music, joined the staff as a Pianoforte Instructor and Lecturer in Theoretical Music at the beginning of the session.

Many of the more advanced students appeared as soloists at the Ladies' Morning Musical Club Recitals and at many concerts given in the city and neighbourhood. Several meetings of the Faculty of Music Undergraduate Society were held during the session at which music was performed and subjects discussed by the members. The McGill Glee Club, of which the Dean of the Faculty is the Honorary President, gave two concerts which, from an artistic point of view, were a great advance on those given during the previous session.

As a result of competition at the beginning of the session the following scholarships were awarded:—

Peterson Memorial Scholarship—J. Cameron Taylor.

Peterson Memorial Scholarship—Frances James.

Macdonald Memorial Scholarship—John Blackburn.

Macdonald Memorial Scholarship—Lynne Elton.

C. W. Lindsay Scholarship—Bessie Herschorn.

Angus Hooper Scolarship—Molly Bare.

Conservatorium of Music Scholarship—Min McCreary.

Towards the close of the session the Montreal Scholarship at the Royal College of Music, London, England, was, as a result of competition awarded to J. Cameron Taylor, who, therefore, for the next three years, will be absent from Montreal and reside in England.

The sessional examinations held, as usual, during the latter part of May, resulted in the degree of

Doctor of Music being conferred on Captain Charles O'Neill, Mus. Bac., and the degree of Mus. Bac. on Elizabeth Cameron and Dorothy Lord at Convocation on May 29th. In the conduct of the examinations held at various local centres throughout the Dominion, the Dean of the Faculty was assisted by Dr. Sanders, Dr. Harper, Dr. Watson, Dr. MacMillan, Dr. Whitehead, Mr. Bryceson Treharne, and Mr. G. A. Stanton.

The gift of a considerable number of cantatas, oratorios and operas from Mr. A. Browning, M.A., a member of the former Conservatorium of Music Committee, and from Mrs. Stirling, widow of Dr. Stirling, should be acknowledged here.

At the very close of the session the Faculty heard with the deepest regret of the death of Dr. Charles E. Moyse, on June 28th. The late Vice-Principal of the University was from 1904 to 1920 a valued member of the Conservatorium of Music Committee, regularly attending its meetings and taking a keen interest in all musical events connected with it.

(Signed) H. C. PERRIN,
Dean.

FACULTY OF GRADUATE STUDIES AND RESEARCH

The session of 1922-1923 saw the establishment of a definite Faculty of Graduate Studies and Research, to replace the Committee on Graduate Studies which had been carrying on its work for so many years in the University. The Committees on Organization and on Standardization made their final reports, which were adopted, at the end of the session, 1922-1923. As a result of the work of the Committee on Standardization and the discussion of this problem at several meetings, it was decided that there should be a minimum of definite instruction, consisting of lectures, tutorials, colloquia, seminars and laboratory work for all candidates proceeding to the degrees in this Faculty. The minimum amount of time to be devoted to definite instruction in the departments was fixed at six hours per week for the first year leading up to the degree of M.Sc., four hours instruction per week for the second year of the course leading up to the Ph.D. degree, and three hoursi-nstruction per week for the third or final year. It was understood that a student may take any number of years more than the minimum requirement to complete his course. These regulations came into force during the past session and were carefully observed in all departments.

An Executive Committee was appointed consisting of Dean Adams, Professor A. B. Macallum, Principal Harrison and Dr. Ira A. Mackay, and Professor Basil Williams was appointed to take the place of Dr. Laing. This committee was appointed to carry out the detail work which formerly fell to the lot of the Committee on Graduate Studies, viz., making a careful scrutiny of the qualifications of all applicants for entrance in the Graduate Faculty, and of those seeking advanced standing and degrees.

The Faculty considered at several meetings the possibility of establishing at Ottawa extension courses, consisting of lectures, tutorials, etc., leading, if possible, to the degree of M.Sc. Dean Adams, Dr. I. A. Mackay and Dean Harrison were appointed a committee to investigate the possibilities of extending the work of the Graduate School to meet the requirements of the Civil Servants in the various departments at

Ottawa, such as Agriculture, History, Law and Chemistry. While the Faculty was not favourable to granting degrees for courses of study pursued by wholly non-resident students, the problem of Graduate Studies and Research in Ottawa will be discussed during the forthcoming session after further study during the summer.

Of the 70 students who had taken courses during the session, 56 were granted degrees.

Fifty-seven degrees granted in 1924, subjects as follows:

The following have been granted the degree of M.A. in 1924:—

Economics	5
English	4
French	2
History	1
Oriental Languages	1
	13

The following have been granted the degree of M.S.A. in 1924:—

Agronomy	6

The following have been granted the degree of M.Sc. in 1924:—

Bacteriology	2
Chemistry	9
Entomology	1
Geology	7
Metallurgy	2
Ore Dressing	3
Pharmacology	1
Physics	1
Physiology	2
Plant Pathology	2
Theory of Elasticity	1
Theory of Structures	1
	32

The following have been granted the degree of Ph.D. in 1924:—

Chemistry	3	12
Geology	1	5
	4	

Granted Mus.Doc. degree in 1924:—

FOR Mus.Doc	1

Granted D.Sc. degree in 1924:—

FOR D.Sc	1

R. F. RUTTAN,
Dean.

FACULTY OF GRADUATE STUDIES AND RESEARCH

The following have been granted the degree of M.A. in 1924:

Name and Address	Previous Degrees and Where Obtained	Subject	Title of Thesis
Berger, Julius, Montreal, P.Q.	B.A., Western Univ., London, Ont.	Oriental Languages	The Education of the Jewish Child in the light of Mishnaic and Talmudic.
Fair, Louisa Margaret, Montreal, P.Q.	B.A., McGill	Economics	The Movement of Canadian Grain to the Sea.
Harris, Richard Colebrook, New Denver, B.C.	B.A., McGill	English	The Plays and Prefaces of George Bernard Shaw: a Study of Shaw, the Dramatist and his Criticism and Interpretation of Life.
Jones, Randolph Ketchum, Woodstock, N.B.	B.A., McGill	Economics	United States Economic Interest in Canada.
Kydd, Mary Winnifred, Montreal, P.Q.	B.A., McGill	Economics	Alien Races in Western Canada.
MacOdrum, Murdoch Maxwell, Halifax, N.S.	B.A., Dalhousie	English	Survivals of the English and Scottish Popular Ballads in N.S.: a Study of Folk Song in Canada.
Mathewson, Dorothy Ruth, Montreal, P.Q.	B.A., McGill	English	French-Canadian Folk Songs and their Relation to English and Scottish Ballads.
Peterson, Frederick Olaf, Montreal, P.Q.	B.A., McGill	Economics	Corporate Finance in Canada.
Reque, A. Dikka, Minneapolis, Minn.	B.A., Minnesota Univ.	French	La Critique Francaise et la Drame Norvegien.
Silver, Edith, Brooklyn, N.Y.	B.A., Columbia	French	L'Influence de Shakespeare sur la theatre d'Alfred de Musset.
Walter, Felix Harold, Montreal, P.Q.	B.A., McGill	English	Blasco Ibanez and His Relation to Zola and the French Naturalists.
Willard, Eugene Wallace, Jr., Montmorency Falls, P.Q.	B.A., McGill	Economics	Certain Aspects of Immigration into Canada.
Wood-Legh, Kathleen Louise, Montreal, P.Q.	B.A., McGill	History	Parliament in the Time of Chaucer.

The following have been granted the degree of M.S.A. in 1924:

Bayfield, Edward Geoffrey, Edmonton, Alta	B.S.A., Alberta	Agronomy	The Comparative Effect of Several Systems of Fertilizing on Crop Production and Soil Fertility.
Cunningham, Howe Symonds, Truro, N.S.	B.S.A., McGill	Agronomy	Methods of Checking and Competition in Relation to Accuracy in Comparative Crop Tests.
Lamb, Cecil Alex., Cloverdale, B.C.	B.S.A., Brit. Col.	Agronomy	The Effect of Liming, Manuring and Barning on Certain Peat Soils as Measured by Crop Growth.
Parent, Robert Cecil, Fredericton, N.B.	B.S.A., Guelph Agric. Coll.	Agronomy	Thickness of Planting in Corn.
Rogers, John Treylean	B.S.A., Univ. Sask.	Agronomy	Relative Yeild and Value of Sweet Clover under different Methods of Treatment.
Tinney, Benjamin Franklin, Charlottetown, P.E.I.	B.S.A., Toronto	Agronomy	Methods of Field Crop Experimentation with Special Reference to the Duration of the Experiments.

The following have been granted the degree of M.Sc. in 1924:

Name and Address	Previous Degrees and Where Obtained	Subject	Title of Thesis
Aylard, Clara Muriel, Victoria, B.C.	B.A., Brit. Col.	Geology	Dykes Encountered in Mount Royal Tunnel between Stations 183-35 and 195-61.
Beaudet, Lionel, Le Parade, P.Q.	B.S.A., St. Anne de la Pocatiere	Chemistry	Phosphate Deficiency in Quebec Soils.
Bishop, Eric Gordon, Greenspond, Nfld.	B.Sc., McGill	Geology	The Geology of the Outside Mine, Portland Canal, B.C.
Bourne, Wesley, Montreal, P.Q.	M.D.C.M., McGill	Pharmacology	The Effects of Anaesthetics at Various Environmental Temperatures.
Buffan, Basil Scott Whyte, Perth, Ont.	B.Sc., McGill	Geology	The Oldest Dykes of Mount Royal Bostonites, Tinguaites, etc., and their Altered Equivalents.
Conklin, Raymond LeRoy, St. Anne de Bellevue, P.Q.	D.V.M., Cornell	Bacteriology	A Sporadic Outbreak Caused by an Undescribed Pseudo-Tetanus Organism.
DeLong, Walter Anthony Scott, Truro, N.S.	B.S.A., Toronto	Chemistry	Pentosan Content in Relation to Winter Hardiness in Commercial Varieties of the Apple.
Faith, Williard Vanamber, Winchester, Ont.	B.Sc., McGill	Metallurgy	Some Physical Properties of Copper-Nickel Mattes.
Finley, Frederick Lovell, Montreal, P.Q.	B.Sc., McGill	Geology	The Nepheline Syenites, Pegmatites and Aplites of Montreal, P.Q.
Fleet, George Alex., Montreal, P.Q.	M.D., McGill	Physiology	Growth Adhering Affinities of Different Forms of Tissue with Especial Reference to Peritoneal Adhesions.
Gegg, Richard Conrad, Hong Kong, China	B.Sc., McGill	Ore Dressing	Sedimentation of Finely Divided Rock Material from Water Suspension, with special reference to the Theory of Design of Settling Tanks and Similar Apparatus.
Gordon, William Lawrence, Lachute, P.Q.	B.S.A., McGill	Plant Pathology	Studies Concerning Injury to Seed Oats after Smut Disinfection.
Hammond, George Henry, Aylmer, P.Q.	B.S.A., Macd. Coll.	Entomology	A Detailed Account of the Genitalia of Graphtolitha (Sub-Fam. Cucullianae, Noctuidae).
Holden, Geo. Wilfred, Montreal, P.Q.	B.A., Bishops	Chemistry	Hydrogen Peroxide as an Oxidising Agent in Acid Solution.
Hunten, Kenneth Wm., Johnville, P.Q.	B.A., Bishops B.Sc., McGill	Chemistry	Examination of Anomalous Values of the Ramsay-Shields Surface Tension Constant.
Legg, Roland Edward, New Westminster, B.C.	B.Sc., McGill	Ore Dressing	The Applicability of Gravity Concentration and Flotation as Accessory to Cyanidation in the Recovery of Gold from Ores of the Porcupine Type.
McLennan, Logan Seaforth, Vancouver, B.C.	B.Sc., McGill	Theory of Structures	Net Sections in Riveted Tension Members.

The following have been granted the degree of M.Sc. in 1924—continued

Name and Address	Previous Degrees and Where Obtained	Subject	Title of Thesis
Malcolm, Robert Bruce, Montreal, P.Q.	M.D.C.M., McGill.	Physiology	Physiology of the Surviving Spleen.
O'Heir, Hugh Bingham, Hamilton, Ont.	B.Sc., McGill	Geology	Dykes of Mount Royal Tunnel from the West Portal for 3,200 feet eastward.
Patterson, Arthur Lindo, Watford, England	B.Sc. in Arts, McGill.	Physics	Energy Transformations between X- and B-radiation.
Patton, Isabelle Jocelyn	B.A., McGill.	Chemistry	Absorption of Gaseous Hydrocarbons by Charcoal.
Pelletier, Rene Arthur, Montreal, P.Q.	B.Sc., McGill	Geology	Absorption of Inclusions of Potsdam Sandstone by an Alkalic Magma, Mount Royal Heights, Montreal, P.Q.
Perry, Helen Margaret, Waltham, Mass.	B.Sc., Mass. Agric. Coll	Bacteriology	Media for the Lactic Acid Group of Micro Organisms.
Scott, Gordon Alex., Perth, Ont.	B.S.A., O.H.C., Guelph.	Plant Pathology	Cultural Characteristics of Certain Colletotrichum Species.
Sivertz, Christian, Victoria, B.C.	B.App.Sc., Brit. Col.	Chemistry	Molecular Compound Formation and Velocity of Reaction at Low Temperature.
Smith, Frederick McIvor, Montreal, P.Q.	B.Sc.Arts, McGill.	Chemistry	Relation between the Chemical Constitution of Organic Liquids and their Ability to swell Certain Organic Materials.
Snijman, Johan Jacob, Natal, S.A.	B.Sc., Univ. Coll., Johannesburg	Ore Dressing	Coarse Grinding versus Fine Grinding in Gold Recovery by Cyanidation.
Squires, Henry Dayton, Fredericton, N.B.	B.A., Univ. N.B.	Geology	Dykes Encountered in Mount Royal Tunnel between East Portal and Station 182-90.
Steacie, Edgar Wm. R., Montreal, P.Q.	B.Sc., McGill	Chemistry	The Viscosity of the Halogen Elements.
Trueman, Jas. Cobden, Winnipeg, Man.	B.Sc., C.E., Man.	Theory of Elasticity	Bond Resistance in I-Beams Haunched with Concrete.
Whittemore, Carl Raymond, Trail, B.C.	B.Sc., McGill	Metallurgy	The Production from Ilmenite and Titaniferous Iron Ore of Titanium Oxide free from Iron.
Vorston, Frederick Harrison, Montreal, P.Q.	B.Sc., McGill	Chemistry	Study of the Constituents of Hevea Resin and Serum.

The following have been granted the degree of Ph.D. in 1924:

Name and Address	Previous Degrees and Where Obtained	Subject	Title of Thesis
Heibert, Paul Gerhardt, Winnipeg, Man.	B.A., Man. M.A., Toronto M.Sc., McGill.	Chemistry	A Study of the Physical and Chemical Properties of Pure Hydrogen Peroxide.
Howard, Walter Vivian, Montreal, Que.	B.A., McGill. M.Sc., McGill.	Geology	Geology of Dalhousie, N.B., and vicinity.
McCallum, Alex. Douglas, Toronto, Ont	B.A., Toronto. M.Sc., McGill.	Chemistry	Synthesis and Polymerisation of Doelefines.
Morrison, Donald McKay, Vancouver, B.C.	B.A.Sc., Brit. Col. M.Sc., McGill.	Chemistry	A Study of Molecular Forces by Means of Molecular Compound Formation, the Gas Law and the Velocity of Reaction.

Granted Mus.Doc. Degree in 1924:

O'Neill, Capt. Chas., Quebec, P.Q.	Mus.B., McGill	Music	A Concert Overture in F for Orchestra and a Choral and Orchestral setting of "The Ancient Mariner."

Granted D.Sc. Degree in 1924:

Dwight, Herbert Bristol, Hamilton, Ont.	B.Sc., McGill	Elec. Eng.	The Study of Voltage Control of Transmission Lines by the Control of Power Factor at the Receiving End.

SCHOOL OF COMMERCE

The session just over is noteworthy in the development of the School of Commerce for the extension from three to four years of the course leading to the degree of Bachelor of Commerce. Some doubts had been entertained as to the effects of this change on the popularity and prosperity of the School. The enrolment, however, was as great as ever, and these doubts have been laid to rest.

Under the new scheme, the student may combine the principal advantages to be derived from an Arts Course, with that special tra ning in the Commercial Sciences necessary for success in modern business. In addition to courses in English Literature and the study and practice of English Composition, each Commerce undergraduate must devote at least three years to the study of a modern language—French, or Spanish, or German—and where languages are important in the career to which he aspires, he may even select two or more of these.

The study of Economics commences in the second year and may be continued in all the remaining years. The programme of economic studies has been selected with care, regard being had to its bearing on the other allied subjects in the curriculum. Particular mention must be made of the work in "Investigation Practice," instituted this year, for the third year Commerce class. Every member of the class had to do original research work and prepare a number of essays or theses on economic questions and problems of practical importance. This investigation work, carried out under the supervision of the full staff of the Department of Economics, proved a great success, and has now been permanently embodied in the curriculum.

Mathematics ceases to be an obligatory subject after the first year, but on account of its value as an aid to other studies, the course on the Mathematics of Investment will be taken by practically all the students in the second year. For those interested in Actuarial Science, and who intend to take the course given on this subject in the fourth year, a special mathematical programme has been arranged in the second and third years.

On the commercial side, a student must select Accountancy as one of his subjects in the first two years. He may continue this course through all four years, and must do so if it is his intention to proceed to the Diploma of Chartered Accountant. It is in the third and fourth years that he will meet with those special studies that are to fit him for his future career in business. These studies will comprise, besides Accountancy, a comprehensive programme in Commercial Law, courses on Business and Industrial Organization, on Statistics, on Advertising, on Transportation, on Marketing Problems, and on Technology. Some of these courses, for obvious reasons, will not be inaugurated until the 1925-26 session, and we must reserve a fuller account of them for later reports.

This year, 35 Commerce graduates received the degree of Bachelor of Commerce, and four past graduates were awarded the diploma of Licentiate in Accountancy of McGill and were duly admitted into the body of Chartered Accountants in this province.

This year two new appointments were made to the Arts and Commerce staff, both in the Department of Economics: Mr. J. P. Day was appointed Associate Professor of Economics, and Mr. J. C. Farthing, Assistant Professor of Economics.

Among the works written during the past session by members of the Commerce staff, that of Colonel R. R. Thompson, on the "History of the 52nd (Lowland) Division, 1914-18," deserves especial mention. This work throws much light on the Gallipoli and Egyptian Campaigns, in which Colonel Thompson took a part, and is considered a valuable contribution to the history of the war. It forms one volume, got up in a very attractive form, with many excellent maps and coloured drawings.

Respectfully submitted,

R. M. SUGARS,
Director-Secretary.

SCHOOL FOR SOCIAL WORKERS

What was previously called the Department of Social Service is now known as the School for Social Workers. It is entirely separate from the Department of Social Science in the Arts Faculty.

Last year was one of the most successful years the School has had. Twenty full-time and 41 partial students were enrolled, and they exhibited a keen interest in their studies and practical work. The social agencies have co-operated most generously in giving the students opportunities for concrete experience in various phases of social work in the city, and they have also given them personal direction in the work. A number of these students are now engaged in social work in the city and other parts of Canada.

On account of ill-health and the heavy burden of her work at the Women's Directory, Miss Jane Wisdom resigned as teacher of Social Case Work. The committee showed its appreciation of her fine service in passing a fitting resolution.

Miss May Reid, a graduate of Brandon College, case work instructor of the Summer School of Columbia University, and assistant supervisor of the Brooklyn Department of Service and Relief, has been appointed to a lectureship in Social Case Work and to the position of supervisor of the students' field work. Miss Reid is also Personal Service Secretary of the Montreal Council of Social Agencies. This extension of field-work planning and supervision has added much to the effectiveness of the School.

A new course, entitled "Principles of Physical and Mental Health," given by leading doctors in the city, has been added to the curriculum. The Law Department has consented to organize a short course for the students of the School, in connection with legal problems that frequently confront the social worker.

Two series of extension lectures have been undertaken by the School through the Extension Committee of the University. The first series, on "Social Work," had an enrollment of 46, and the second, entitled "Social Problems", had an enrolment of 78. In addition, three of the five lecturers in the second series spoke to other audiences: Dr. William Healy, of the Judge Baker Foundation, Boston, lectured to a com-

bined gathering of the Service Clubs, Mr. R. K. Atkinson, of the Russell Sage Foundation, addressed the Physical Educationalists of the city, and Robert A. Wood, of Boston, was the special speaker for the Social Workers' Club. Each of these speakers spent two days giving expert counsel to the Social Welfare leaders here.

SCHOLARSHIPS—The committee wish to thank the Montreal Women's Club, the Notre Dame de Grace Women's Club, and the Montreal Rotary Club for three scholarships (one each) they have contributed. These scholarships are for diploma (second year) students, and each amounts to $150 a year. It is expected that these scholarships will stimulate an interest in a more extended course of education and training in the social field, as well as make a social education possible for worthy and capable persons who need just such a help.

A clearer appreciation of social work and trained leadership for it is gradually developing everywhere. The committee is interested in the graduation of those who feel that their social education is beginning rather than ending; those who will develop not only the skill of application but also in the breadth and depth of their social and spiritual outlook.

The committee is most grateful for constant and whole-hearted co-operation in the University and in the city.

Respectfully submitted,

C. A. DAWSON.

SCHOOL FOR GRADUATE NURSES

Change in Staff

At the close of the first term Miss Elizabeth Smellie resigned her position as Instructor and Field Supervisor in Public Health Nursing. It was found impossible adequately to fill the position, so Miss Anne Curwell, class 1923, was appointed temporarily as Field Supervisor, and Miss MacDonald, Director of the local Child Welfare Association, was secured for the lectures in Public Health Nursing.

Extension Courses

At the request of the private duty and public health nursing sections of the Association of Registered Nurses of the Province of Quebec, two intensive extension courses, or institutes, were held in May. By courtesy of Principal Smythe and the Governors of the Wesleyan Theological College, the use of the college was obtained for both institutes. The accommodation thus secured was all that could be desired. The first course, for private duty nurses, was held from May 5th to 10th; thirty nurses registered. The second course for nurses engaged in public health nursing, or who had had a previous course in this subject, was held from May 12th to 23rd; twenty-eight nurses registered. Nurses who attended these extension courses have expressed, both in person and by letter, their gratitude for the opportunities thus afforded and their appreciation of the lectures given.

Field Work

We are in debt to the Montreal and Outremont Departments of Health, the local hospitals, the Royal Edward Institute, the Mental Hygiene Association, the Victorian Order of Nurses, the Child Welfare Association and other social agencies for their courtesy in continuing to give opportunities for observation to our students.

Registration

The twenty-two students were divided as follows:—

Course A.—Public Health Nursing; registration, seven.

Course B.—Teaching in Schools of Nursing; registration, ten.

Course C.—Administration in Schools of Nursing; registration, five.

Two students having had exceptional experience were allowed to register for both course B and course C.

Scholarships

In all thirteen students held scholarships. Two of these were given by the Association of Registered Nurses of the Province of Quebec, one by the Royal Victoria Hospital, one by the Montreal General Hospital, one by the Western General Hospital, one by the Toronto General Hospital, two by the Hamilton General Hospital, two by the Winnipeg General Hospital, two by the Hospital for Sick Children, Toronto, and one was the Mildred Hope Forbes Memorial Scholarship in the gift of the Montreal General Hospital.

Certificates

Twenty-one students received their certificates at the Convocation of the University on May 30th. Seven of these passed their examinations with distinction.

Dr. Helen R. Y. Reid's prizes for the highest standing in public health nursing and teaching in Schools of Nursing were awarded respectively to Miss Emily Matthews, of Montreal, and to Miss Dorothy French, of Wingham, Ont. Two students, Miss Louise Dickson and Miss Olive FitzGibbon, received certificates for both teaching in Schools of Nursing and administration in Schools of Nursing.

Past Students

The demand for graduates of the school continues to increase. By the close of the session nearly all the students had already obtained positions; the demand for instructors is much greater than we can meet.

We wish to thank the staff of the Department of Physical Education and the School for Social Workers for their continued co-operation.

Respectfully submitted,

F. M. SHAW,
Director.

SPECIAL REPORTS

REPORT OF THE LIBRARY COMMITTEE

The Librarian herewith submits the report of the Library Committe for the year ended June 30, 1924. Owing to a change in the dates of the presentation of reports the present summary includes statistics from July 1, 1923, and therefore overlaps the preceding report to September 30, 1923. For convenience of reference the statistics for the overlapping quarter are given separately. The quarterly reports to Corporation are made for the three months ending March 31st, June 30th, September 30th, and December 31st. The statistics of the annual report, which covers the period from July 1st to June 30th, are a cumulation of these.

Library Committee—The Library Committee consisted for this year of Sir Arthur William Currie, G.C.M.G., K.C.B., LL.D. (Chairman); William Gardner, M.D.; Francis McLennan, B.C.L., LL.D., K.C.; C. J. Fleet, B.A., B.C.L., K.C.; William Douw Lighthall, LL.D., K.C.; Frederick Cleveland Morgan, M.A.; Paul T. Lafleur, M.A. (until his death in February, 1924); Charles Edmund Fryer, M.A., Ph.D.; Ernest Brown, M.Sc., M.Eng.; Herbert Arthur Smith, M.A.; F. A. C. Scrimger, V.C., B.A., M.D.; Eugene Lafleur, D.C.L., LL.D., K.C.; C. F. Martin, B.A., M.D.; C. F. Wylde, C.B., M.D.; F. D. Adams, Ph.D., D.Sc.; LL.D., F.R.S.; R. F. Ruttan, M.D., D.Sc., F.R.S.C.; Ethel Hurlbatt, M.A., T.C.D.; G. R. Lomer, M.A., Ph.D. (Secretary).

The Committee regrets to record the death of Professor Paul T. Lafleur, for many years one of its most faithful and helpful members. The following resolution was passed:

"By the death of Professor Paul T. Lafleur in Luxor, Egypt, on February 9th, the Library Committee has lost a member of long standing and of unequalled influence. During the thirty-eight years of his teaching in the University the Library claimed his devoted and unfailing service. The Library shares with the University the loss of a great scholar whose influence in the lecture room upon successive generations of students will be commemorated by colleagues, graduates, and undergraduates. His influence in the judicious expenditure of the small funds at the disposal of the Library for the purchase of books, and his generous gifts of books representing the literature of many countries, have helped to build up for those who come after a foundation for the scholarly study in the University of the English language and literature and of comparative literature. Rare talents, an immense knowledge, a penetrating judgment, and exquisite taste combined to make him a critic and adviser whose place

the Library Committee cannot hope to fill. His genial personality and his charm endeared him not only to his students and colleagues but likewise to a very wide circle of intimates. The Committee here records its deep sense of admiration, of indebtedness, and of loss."

Constitution of Library Committee.—According to the Statutes of the University, the Library Committee is a committee of Corporation constituted as follows: The Principal, chairman, ex officio; the Librarian, secretary, ex officio; and members representing the Governors, two; Corporation, four; Graduates, one; Faculty of Graduate Studies and Research, one; Faculty of Arts, two; Faculty of Applied Science, two; Faculty of Medicine, two; Faculty of Law, one; Royal Victoria College, one.

Library Progress and Needs.—During the year covered by this report steady progress has been made in all departments of the Library and a definite step forward has been made in improving the routine of certain branches of the work. The Reading Room proved even more attractive after its much needed cleaning, and the fire doors which have been installed have added to the safety of the building. The Gallery of the Reading Room has been fitted with cases and a permanent exhibit of archaeological material has been installed with the co-operation of the Theological Colleges. The accommodation for the Library of Congress Catalogue has been extended, and the beginning of a special library on music has been planned.

The purpose of a Library Report is threefold: first, to summarize and record the work that has been done and the progress that has been made during the year; secondly, to point out defects, tendencies, and needs, as the experience of the year has brought these to notice; and, thirdly, to suggest or recommend the improvement or extension of various departments of the Library or to indicate the difficulties which will arise if the conditions in question are neglected.

In spite of the rapid increase in the contents of the Library, the addition of new courses to the curriculum, the appointment of new professors, and the increased registration in the Faculty of Graduate Studies and Research are daily making demands upon the Library for books new and old and for rare or expensive sets and periodicals. The funds for purchasing, cataloguing, and housing these very necessary additions to the equipment of the University are totally inadequate. Especially in the matter of graduate research the situation is becoming serious. It is of little use for professors to encourage the best students to undertake graduate work or for the University to attract students from elsewhere by advertising new courses unless the means are provided at the same time for carrying on the work. Research in many depart-

ments cannot be carried on in laboratories but only in libraries; and even in scientific subjects, which are conventionally associated with the laboratory, the demand for the latest publications in all languages is incessant and imperative. It is the function of a university to keep the circle of knowledge complete, not to leave it a broken arc, and this completeness of scope cannot be attained in any educational institution without keenness of vision on the part of the administration and an alert gerenosity on the part of its graduates and benefactors. Then, and then only, will the full significance of such a motto as "Grandescunt aucta labore" be realized.

Cataloguing and Filing.—Very definite progress was made this year in the number of books catalogued and cards filed. The policy of installing duplicate sets of cards in special or departmental libraries has been continued and the increased convenience to teaching staff and students justifies the extra expenditure of time and funds. Duplicate cards have thus been made and filed for the Lyman Collection, the Physics Library, the Emma Shearer Wood Library of Ornithology, the Blacker Library of Zoology, the Baillie Library of Chemistry, and the Library of the Department of Botany. The total number of cards filed in the catalogue and departmental libraries was 39,306.

During the year progress was made in completing various sets and periodicals in the special libraries; all the English Parliamentary Papers from 1909 to date were bound and catalogued; and the Botanical Library was re-catalogued.

The statistics for this department for the year 1923-24 are as follows:

	July, Aug., Sept., 1923	Oct., 1923-June, 1924	July, 1923-June, 1924
Accessions catalogued:			
Gifts	206	3,574	3,780
Purchases	1,244	7,884	9,128
Exchanges	10	185	195
Accessions not included above	74	286	360
Cataloguing not included above	148	1,139	1,287
Books reported lost or withdrawn	295	275	570
Books returned	6	18	24
Total books lost or withdrawn	289	257	546
Total accessions	1,393	12,811	14,204

The total number of books in the University Library is estimated as follows:

In Redpath Departmental Libraries	179,619
In Medical Library	36,812
In the Traveling Libraries	9,563
Total	225,994

In this connection it is interesting to note that in 1893, when the Redpath Library was opened, 35,000 books were moved from Molson Hall, which had previously housed the University Library. In 1900, when the first extension to the stack was completed, the total had reached 57,517. In 1922, when the new extension was opened, the number of volumes had reached 169,949.

Binding.—The large number of minor repairs and the amount of special binding required by the Library has increased to such an extent that it is more than can be accomplished by Mr. McGruther in the Redpath Library and Mr. Page in the Medical Building. An assistant has been provided for the former, and the latter employs two helpers. Owing to the difficulty of obtaining satisfactory binding in the city, it is highly desirable that the facilities of the University bindery be combined in one workshop and increased in scope.

At present it has been found economical to have practically all binding of foreign orders done before shipment in the country of origin. In the effort to find workmanlike and durable Canadian binding, during the past year the experiment was made of placing trial orders with various binders in this country, but the work has not proved equal to that done in England or on the Continent. The rapid advance in the cost of labour, as well as the more moderate increase in the cost of materials, shows distinctly in the large sum spent for binding during the past year.

In the University Library 830 books were repaired and 1,990 book were bound, and in the Medical Library -,231 books were bound between July 1, 1923, and June 30, 1924.

Apart from the binding, approximately 2,700 pamphlet covers were used, chiefly in the Emma Shearer Wood Library of Ornithology and the Blacker Library of Zoology.

Reading Room.—During the year the Reading Room of the Redpath Library was open for 283 days, 7 half-days, and 151 evenings. Owing to lack of sufficient staff no account at present is kept of the attendance in the Royal Victoria College, the Physics Library, the Baillie Library of Chemistry, the Lyman Collection, and Department of Botany Library. In the next annual report it is hoped that at least some of these and the Medical Library will be included. The attendance in the Redpath Reading Room and in the Law Library was as follows:

ATTENDANCE

	Redpath	Law	Visitors	Total
July 1, '23-Sept. 30	1,380	298	491	2,169
Oct. 1-Dec. 31	12,196	2,115	420	14,731
Jan. 1, '24-March 31 ...	16,842	1,871	366	19,079
April 1-June 30	12,825	1,359	369	14,553
Totals	43,243	5,643	1,646	50,532

Circulation and Reading Room.—The statistics of the circulation of books, excluding inter-library loans, postal service, and Traveling Libraries, are as follows:

CIRCULATION

	Reading Room	Home Use	Law	Book Club	Total
July 1, '23-Sept. 30	2,166	3,081	55	2,308	7,610
Oct. 1-Dec. 31	8,569	8,808	775	3,596	21,748
Jan. 1, '24-March 31	14,791	9,256	947	3,982	28,976
April 1-June 30	13,443	5,598	751	3,575	23,367
Totals	38,969	26,743	2,528	13,461	81,701

Attention is called to the fact that the University Library is experiencing the same difficulty as other college libraries in the matter of books reserved on the shelves of the Reading Room as reference books for the use of students. Though adequate provision is made for the home use of reference books, many of these volumes continue to be borrowed contrary to regulations or stolen. So much inconvenience to other students and unnecessary trouble to the Library staff have been caused recently by unscrupulous students that other arrangements may have to be made for the safeguarding of these volumes. It is a matter of the utmost regret that some McGill students, in a college where honesty has always been a tradition, should show such continued evidence of disregard of property and consideration for their fellow-students.

The overcrowding of the Reading Room has, during the past session, become a matter of increasing concern. At present the total capacity of the Reading Room is 132 seats, whereas the students in attendance in Arts in 1923, including the Royal Victoria College, amounted to 687. The result is a congestion even in the morning and one which becomes more serious towards the end of the afternoon, even though the Royal Victoria College freshmen are encouraged to use their own reading room. A special, though inadequate, room has been assigned to the graduate students, but it is far fram satisfactory. It is obvious, therefore, that further accommodation must be provided. The suggestion is made that, as a partial relief, a special Freshmen Reading Room be provided when the Arts Building is remodeled.

Special and Departmental Libraries.—In addition to the large collection of books of general interest housed in the Redpath Library, the University Library now contains the following special collections:

A. Faculty or College Libraries: 1. The Medical Library (in the Medical Building); 2. The Law Library (in the East Wing); 3. The Royal Victoria College Library.

B. Special Libraries:

1. The Blackader Library of Architecture (in the Redpath Library), established in 1917 by Dr. and Mrs. A. D. Blackader in memory of Captain Gordon Home Blackader. Committee; Professor Ramsay Traquair (Chairman), Mr. Ernest I. Barott, Mr. F. Cleveland Morgan, Mr. Lawrence Grant White, Dr. G. R. Lomer (Secretary), and Dr. A. D. Blackader.

2. The Emma Shearer Wood Library of Ornithology (in the Redpath Library), established by Colonel Casey A. Wood, M.D., LL.D., in 1920 in honour of Mrs. Wood. Committee: Colonel Casey A. Wood and Dr. G. R. Lomer.

3. The Blacker Library of Zoology (in the Redpath Library), established by Mr. and Mrs. Robert Roe Blacker in 1920. Committee: Colonel Casey A. Wood, Professor Arthur Willey, and Dr. G. R. Lomer.

4. The Baillie Library of Chemistry (in the Macdonald Chemistry Building), established in 1923 by the late Mr. John Baillie in memory of his son, Lieutenant George Irvine Baillie. Committee: Dr. R. F. Ruttan, Mr. Archie Baillie, and Dr. G. R. Lomer.

5. The Lyman Entomological Collection (in the Redpath Museum), established in 1914 by the will of Mr. H. H. Lyman.

C. Departmental Libraries:

1. The Physics Department (in the Macdonald Physics Building). Committee: Dr. A. S. Eve, Dr. A. Norman Shaw, Dr. Louis V. King, and Dr. G. R. Lomer.

2. The Department of Botany (in the Biological Building). Committee: Professor Francis E. Lloyd, Professor Carrie M. Derick, and Dr. G. R. Lomer.

3. Other departments: For the present the small collection of books belonging to the Social Science Department, The Department of Physical Education, The School for Graduate Nurses, and the School of Commerce are housed in the Redpath Library.

Catalogue of Scientific Periodicals.—The work on the Catalogue of Scientific Periodicals in Canadian Libraries was practically completed by Miss Margaret S. Mackay and the Librarian at the end of the period covered by this report, as all the copy was in the hands of the printer and proof-reading and final revision were in progress. Since that date the Catalogue has been bound and issued, and the first copies were sent to Toronto in time for the meeting of the British Association at the beginning of August. Further details regarding the distribution of the Catalogue will be found in next year's report.

The Catalogue, which covers 255 double-column quarto pages, contains exact bibliographical entries of scientific periodicals followed by an indication of the volumes in the possession of the following co-operating libraries:

Province	Libraries
Alberta	Edmonton Public Library; University of Alberta Libraries.
British Columbia	British Columbia Legislative Library; Pacific Biological Station; University of British Columbia Library; Victoria Public Library.
Manitoba	Manitoba Agricultural College Library; University of Manitoba Libraries.
New Brunswick	Atlantic Biological Station; Natural History Society of New Brunswick; St. John Free Public Library; University of New Brunswick. Free Library, Halifax; Dalhousie University Libraries.
Nova Scotia	Acadia University Library; Citizens' Free Library, Halifax; Dalhousie University Libraries.
Ontario	Canadian Forestry Association; Department of Agriculture Libraries; Dominion Bureau of Statistics; Entomological Society of Ontario; Forestry Branch, Department of the Interior; Geological Survey, Department of Mines; London Public Library; McMaster University Library; Mines Branch, Department of Mines; Queen's University Libraries; Royal Astronomical Society of Canada; Toronto Public Library; University of Toronto Library; University of Western Ontario Libraries.
Quebec	Bibliothèque Saint-Sulpice; Ecole Polytechnique; Engineering Institute of Canada; Forest Products Laboratories; Laval University Libraries; Macdonald College Library; McGill University Libraries; Montreal Public Library; Montreal Technical School; University of Montreal Medical Library.
Saskatchewan	University of Saskatchewan.

Library School.—The regular summer session of the Library School was held for six weeks, from Monday, May 19, to Friday, June 27, 1924, under the direction of the University Librarian, assisted by Miss E. V. Bethune, of the University of Toronto Library, and Miss M. C. Duncan, Associate Professor of Library Science in Skidmore College. Instruction was also given by the following members of the Library Staff: Miss Jean Cameron, Elizabeth G. Hall, B.A., Helen L. Haultain, Margaret E. Hibbard, Doris A. Lomer, Mary Muirhead, Mr. Edgar L. du Plessis, and Miss Laura A. Young, B.A.; and also by Miss Charlotte Houston, Librarian of the High School, Miss Mary D. Muir of the McCord National Museum, and Miss Mary S. Saxe, Librarian of the Public Library, Westmount.

Special lectures, which have always formed an attractive feature of the course, were given by Miss Edyth L. Miller, Librarian of the New York Training School for Teachers, Professor William Carless, O.B.E., F.R.I.B.A., of the Department of Architecture, Mr. Harry Burton of Foster Brown Company, Mr. Louis Carrier of the Mercury Press, the Rev. James E. Fee, M.A., of the Protestant School Commission, Mr. M. J. Patton of the Department of the Interior, Miss E. A. Smillie, M.A., of the Public Archives of Canada, Professor B. K. Sandwell of Queen's University, and Mr. George Iles.

The course covered the following subjects: **A. Technical Courses:** Library Handwriting and Typing, Elementary Cataloguing, Classification, Book Numbers, Accessioning, Shelf-Listing, Binding and Repairs, Alphabeting, Filing and Indexing, Summary of Library Routine. **B. Bibliographic Courses:** Reference Work, Trade Bibliography and Ordering, Book Selection, Subject Bibliography, Development of the Manuscript, Periodicals, Serials. **C. Administrative Courses:** Library Administration, Loan Administration, Modern Library Planning, Library Equipment, Supplies and Printing, The Care of the Stack, The Public Library, Special Libraries. **D. Library Extension:** Publicity and Extension Work, Traveling Libraries, The School Library, Literature for Children, Museums and their use.

The thanks of the students and of the Library Committee are due to the following for their kind reception of the students on their Saturday morning excursions: The Art Association of Montreal, Art Book Binding and Loose Leaf Company, Bibliothèque Saint-Sulpice, Chateau

de Ramezay, David Ross McCord National Museum, Dominion Press Limited, Mercury Press Limited, Fraser Institute Free Public Library, Mechanics' Institute of Montreal, Public Library of the City of Montreal, and the Public Library, Westmount.

The following students were registered. Montreal: Mrs. Clara Cummings, Miss Lottie Davis, Miss G. N. Evans, Miss Katharine Howard, Miss F. G. Smith, Miss Saidai Spendlove; Chatham, Ont.: Miss Marjorie Waddell; Dorval, P.Q.: Miss L. R. Williamson; Hamilton, Ont.: Miss P. I. Clark; Toronto, Ont.: Miss Mabel Cory.

Requests for winter instruction in library work continue to be received; and, as was pointed out in the last Annual Report, only the lack of funds prevents the establishment of a regular winter session. The Librarian attended the meeting of the Special Library Training Board of the American Library Association and is convinced that the time has come for the establishment of a permanent library school under University control in Montreal. The summer course in this branch of University work was established in 1904, and its existence after twenty years should be sufficient proof of the continued need of this kind of instruction, which has now become a recognized and credited part of the curriculum in many American colleges.

Inter-Library Loans.—Both professors and students have continued to benefit by the system of inter-library loans, and the University Library wishes to thank the other institutions which have, by their co-operation, enabled especially the Faculty of Graduate Studies and Research to supplement its resources.

Books have been borrowed from the following institutions: Carnegie Public Library, Ottawa; Library of Congress, Washington; Harvard College Library; Library of St. Sulpice, Montreal; University of Toronto Library; Hebrew Union College Library, Cincinnati; Columbia University Library, New York; Macdonald College Library.

The University has supplied books and reference material to the following institutions as well as to individuals: State University of Iowa; Macdonald College; Geological Survey Library, Ottawa; University of King's College Library, Halifax; Rensselaer Polytechnic Institute, Troy, N.Y.; Cornell University Library, Ithaca, N.Y.; Hillsdale College, Mich.; Queen's University Library,

Kingston; Library of St. Sulpice, Montreal; University of Manitoba Library, Winnipeg; Department of Agriculture, Entomological Branch, Ottawa; Department of Public Instruction, Quebec; University of Missouri Library; Shawinigan Technical Institute, Shawinigan Falls.

Manuscripts.—The fact that McGill University possesses a number of manuscripts of interest and significance in the study of early American and Canadian history is becoming more widely known. Though comparatively little use has been made of them thus far at McGill, it is a matter of satisfaction to see that their importance is being more and more realized by investigators who are seeking original sources in re-writing the early history of this continent. The Manuscript Collection has been consulted during the year by Mr. Laurence J. Burpee, President of the Canadian Historical Association, Ottawa; Colonel Alexander Fraser, Deputy Minister of Public Archives, Toronto; Dr. Wayne Stevens of Dartmouth College; Miss Grace L. Nute of the Minnesota Historical Society, and by Professor L. E. Young of the University of Utah. A summary of the historical material in the University Library was printed in last year's report. Notable additions have been made to the collection of letters of ornithologists by Dr. C. A. Wood, and several items of interest have been added to the collection of autograph letters. The Library, however, stands in great need of an emergency fund which would be available for the purchase of manuscripts as they appear on the market.

The Library Museum.—The Committee reports an active year in the Library Museum and an increase of public interest in the numerous exhibits which have been held. To the various friends who have lent material the thanks of the Committee are due. Special interest attaches to the exhibit prepared for the celebration of the Francis Parkman Centenary in Montreal. The cases contained many books and manuscripts of personal interest and documents and volumes of historic importance. Among these may be mentioned manuscripts and paintings lent by the Public Archives of Canada, Harvard College, Brown University, Massachusetts Historical Society, the Library of Congress, the Library of St. Sulpice, as well as by Professor Bliss Perry, Mr. J. T. Coolidge, Mr. Jerome H. Johnson, Mr. L. J. Burpee, Mr. G. W. Pierce, Mr. N. G. Lindsay, Mr. J. F. Peterson, Mrs. Robert Reid, and Mrs. J. W. Strong. Of particular interest was the visit of M. Jusserand, who kindly autographed such volumes of his works as were in the Library.

The following exhibits have been open to the public, without charge:

LIBRARY MUSEUM.

Date	Exhibit	Days Open	Visitors
June 1-Sep. 30, 1923	Egyptian and Meroitic Antiquities ...	78	612
Nov. 2-Dec. 22, 1923	Francis Parkman Centenary Exhibit.	44	370
Jan. 14-Mar. 31, 1924	Woodcuts, Old and New	67	366
Apr. 12-May 12, 1924	Duke of Wellington and Arabic Manuscripts	26	164
May 19-June 27, 1924	Bird Books and Pictures	34	205
	Totals	249	1,717

The figures represent only visitors who signed the register, and twice the number would be a conservative estimate of those who attended the exhibits.

Several small exhibits were prepared on special occasions for the benefit of students of the University. At the time of Dr. Nansen's visit and lecture, an exhibit of books, illustrations, and maps relating to Polar exploration was placed on view; at the time of Mr. George Macaulay Trevelyan's lectures, a collection of representative works by the members of his distinguished family was displayed; and coincident with the lecture on Carthaginian antiquities by the Count de Prorok, an exhibit on this subject was arranged. It is to be noted that at present these exhibits have apparently proved of more interest to visitors from the city than to members of the University.

The gallery of the Reading Room was prepared for the reception of the collection of Egyptian and Meroitic antiquities purchased by the Theological Colleges, and this archaeological material was installed by Principal D. L. Ritchie, the Rev. Dr. Alexander R. Gordon, and Miss Barbara Macdonald, Librarian of Divinity Hall. The Librarian added to the exhibit related material from the Library collection. There has thus been formed the nucleus of a collection illustrative of biblical archaeology to which items of interest have been added by Mr. F. Cleveland Morgan, Mrs. J. B. Learmont, Dr. W. D. Lighthall, and the Maccabean Circle.

In connection with the other exhibits, the Committee wishes to record its thanks to Mrs. A. D. Durnford for the loan of relics of the Duke of Wellington, to Mr. F. Cleveland Morgan for the loan of Persian manuscripts, to Messrs. Demotte for similar material, and to Dr. C. A. Wood for a series of original paintings of birds of the South Seas.

Of special interest this year was the exhibit of books and pictures belonging to the Emma Shearer Wood Library of Ornithology from May 19 to June 27. Dr. and Mrs. Wood were present at the opening of the exhibit, which was attended by members of the University and of the Province of Quebec Society for the Protection of Birds. Interest was aroused especially by the early historical works on ornithology, the unique Feather Book, and the series of over 90 original paintings of birds of the South Seas made from life under Dr. Wood's direction last winter. The exhibit proved conclusively that every branch of the subject is represented in this collection and that it is an unusually complete reference library on ornithology, especially rich in rare and foreign periodicals and pamphlets.

Book Clubs.—The Library Committee again gratefully acknowledges its indebtedness to the McGill College Book Club and to the University Book Club for the presentation of a number of volumes which are welcome additions to the shelves of the Library.

The McGill College Book Club.—The Committee consisted of Dr. F. J. Shepherd, Dr. William Gardner, Dr. Stephen Leacock, Mr. George B. Fraser, Mr. Benjamin Dawson, Lt.-Col. George R. Hooper, and Dr. G. R. Lomer. During the year this Book Club presented 60 volumes to the University Library.

The University Book Club.—The Committee consisted of Rev. R. E. Welsh, (Chairman), Professor William Carless (Hon. Treasurer), Miss Eileen B. Thompson (Hon. Secretary), Dr. William Gardner, Mr. R. A. Batley, Professor George Latham, Mrs. J. M. Morris, Miss Laura A. Young, and Dr. G. R. Lomer. During the year 1922-23 the membership amounted to 277. 726 new volumes were added to the shelves at a total expenditure of £361 18s. Approximately 34% of this amount was spent on fiction. It is a matter of satisfaction to note that the re-decorated club room is now being used almost as much for quiet reading as for the selection of books, and the Committee hopes during next year to add to the comfort and attractiveness of the room. During the year the University Book Club presented 418 volumes to the Library.

University Papers.—The collection and distribution of reprints of papers by members of the University staff is included under the department of Library Administration. During the past year there has been a notable increase in the number of papers added to this series, but even a casual examination of the list of papers reveals the fact that this activity is confined to certain departments of the University and that there are apparently other departments in which material of this sort is not being published, or at least is not being suggested for inclusion in the series. The wide distribution of these papers to edu-

cational and scientific institutions throughout the world makes it desirable that the representation from this University should be as well balanced as possible.

During the year covered by this report the following papers were added to this series and were distributed to the institutions and individuals on the University exchange list:

Series I: ADDRESSES AND LECTURES

No.	6,	Parkman Celebration at Montreal, Nov. 13, 1923.	
"	7,	Traquair, Ramsay	Art Teaching and Drawing in Schools.

Series II: BOTANY

"	22,	Lloyd, F. E.	A method of ultramiscroscopy whereby
No.	19,	Scarth, G. W.	Adhesion of Protoplasm to cell wall, and the agents which cause it.
"	20,	Lloyd, F. E.	Fluorescence in the cyanophyceae.
"	21,	Lloyd, F. E.	The fluorescence of certain lower plants.
"	22,	Lloyd, F. E.	A method of ultramicroscopy whereby fluorescence in the cyanophyceae and diatomaceae may be demonstrated.
"	23,	Lloyd, F. E.	Ultramicroscopically observable fluorescence.
"	24	Lloyd, F. E.	The fluorescent colors of plants.
"	25,	Lloyd, F. E.	Some effects of narcotics on spirogyra.
"	26,	Scarth, G. W.	Colloidal change associated with protoplasmic contraction.
"	27,	Scarth, G. W.	The action of cations on the contraction and viscosity of protoplasm in spirogyra.

Series III.: CHEMISTRY

No.	36,	Barbour, H. G.	Some chemical bearings of Pharmacology.
"	38,	Whitby, G. S. and Cambron, A.	The influence of bases on the activity of vulcanization accelerators.
"	38,	Whitb, G. S. and Winn, A. R.	The acidity of raw rubber.
"	39,	Maas, Otto, Boomer, E. H. and Morrison, D. M.	Unsaturation and molecular compound formation, III.
"	40,	Whitby, G. S.	Accelerators of vulcanization.
"	41,	Hatcher, W. H.	Hydrogen peroxide as an oxidising agent in acid solution.
"	42, and 43,	Maas, Otto and Morrison, D. M.	Oxonium compounds in the vapor state. Methyl ether—Hydrogen chloride. and The existence of a compound, hydrogen bromide-methyl ether, in the vapor state.

Series V: GEOLOGY, MINERALOGY and METALLURGY

No.	8,	Bancroft, J. A. and Howard, W. V.	The Essexites of Mount Royal, Montreal.
"	9,	Dolan, E. P.	The contact metamorphic zone of Mount Royal, Montreal.

Series VII.: LIBRARY

No.	6,	Lomer, G. R.	Report of the Library Committee, 1922-1923.

Series VIII: MEDICINE

No. 23,	Mackenzie, K. A. and Hattie, W. H.	Early adventures with chloroform in Nova Scotia, and The early story of vaccination on this continent.

Series X: PHYSICS

No. 18,	Shaw, A. N.	Transmission of heat through single-frame double windows. (Reprint of No. 8 with additions.)
" 19,	King, Louis V.	On the complex anistropic molecule in relation to the dispersions and scattering of light.
" 20,	Bieler, E. S.	The effect of deviations from the inverse square law on the scattering of a-particles.
" 21,	Keys, David A.	On the adiabatic and isothermal piezo-electric constants of tourmaline.
" 22,	Keys, David A.	The cathode-ray oscillograph and its application to the exact measurement of explosion pressures, potential changes in vacuum tubes and high tension magnetos.
" 23,	Gray, J. A.	Note on secondary X-rays.
" 24,	Shaw, A. N.	Thermo-electric effects in homogeneous conductors.

Gifts.—The total number of gifts, as indicated in the list appended to this report, amounted to 3,780. Among these special mention should be made of the following:

Gifts of Funds.—Notable among the benefactors of the year is the gift of $18,000 from Mr. and Mrs. Robert Roe Blacker for the purchase of additional volumes for the Library of Zoology, which was established through their generosity and which now ranks very high among the scientific collections on this subject in America and in Great Britain.

Also $617.74 from Colonel Casey A. Wood, M.D., LL.D., for purchases for the Emma Shearer Wood Library of Ornithology.

Gifts of Books, Pictures, etc.—549 volumes presented by Dr. T. J. W. Burgess through Professor Lloyd; a collection of volumes, photographs, etc., from Mrs. J. B. Learmont; a water-colour portrait of Walter Frewen Lord, through Dr. Francis McLennan; a complete Pentateuch dating from 1600, presented by a number of residents of Montreal through the Maccabean Circle; several sets of standard English fiction and German works from William F. Gronau; a case containing 54 volumes of Roman, Greek and French literature, a few modern works for the Theological Traveling Library and one volume for the Royal Victoria College, as well as a number of illustrations and other volumes presented by Dr. Francis McLennan; a collection of 53 publications and miscellaneous works from Dr. D. D. MacTaggart; a leaf of a Ninth Century Coptic Koran from Mr. F. Cleveland Morgan; a col-

lection of 29 volumes of history, biography and travel, from Miss Sise; a large collection of books for the Emma Shearer Wood Library of Ornithology, including 175 volumes of the Cabanis-Reichenow and Sclater Collections; 31 volumes and 34 pamphlets to the Blacker Library of Zoology; 5 volumes to the General Library; 37 autograph letters of ornithologists, a coloured print of pheasants, and a pencil drawing by Gronwald to the Emma Shearer Wood Library of Ornithology, presented by Colonel Casey A. Wood, also a large collection of books (230) and pamphlets, and 82 autograph letters of ornithologists for the E. S. Wood Library of Ornithology, 2 volumes for the Blacker Library of Zoology and 3 volumes for the University Library from Colonel Wood.

Also a number of volumes from: Dr. Frank D. Adams, Mr. E. T. Adney, Dr. J. A. Bancroft, Dr. A. D. and Mrs. Blackader, Dr. Melville Black, Sir Stopford Brunton, Dr. A. Judson Eaton, Dr. C. E. Fryer, Miss Mary Gould, Frederick Hague, Esq., the Czechoslovak Consulate in Canada, Mrs. W. E. Dickson, George Iles, Esq., the late Professor Paul Lafleur, Dr. Stephen Leacock, Dr. W. D. Lighthall, Professor F. E. Lloyd, Mrs. A. Lomer, Mr. T. B. Macaulay, Sir Andrew Macphail, Miss Isabella C. McLennan, Mrs. Lenox Mills, Mr. F. Cleveland Morgan, Mr. Ian C. Morgan, Mrs. James Peck, Mr. L. A. Pierce, Professor E. B. Poulton, Dr. D. L. Ritchie, Dr. R. F. Ruttan, Sir Thomas Tait, Messrs. H. Sotheran & Co., Mr. C. J. Stuart, Professor R. R. Thompson, Dr. John L. Todd, Professor Ramsay Traquair, Mr. Philip J. Turner, Rev. W. G. Walsh, Mr. F. L. Wanklyn, Mrs. Casey A. Wood.

The Library is also deeply indebted to the Commonwealth of Australia; Bengal District Gazetteers; Binghampton Public Libraries; Bodleian Library; British Museum; B. C. Department of Education; Government of British Guiana; Advisory Research Council, Canada; Canada-Biological Board; Central Experimental Farm; Department of the Interior; Marine and Fisheries Department; Naval Service and Public Archives; Canadian Historical Society (London, Eng.); Canadian National R.R.; Carnegie Endowment for International Peace, Washington and New York; Carnegie Institution-Dept. of Historical Research; Library of W. A. Clark, Jr., Los Angeles, Cal.; Edinburgh University; French Government through Consul General of France, Montreal; Harvard University Press; Harvard University-Graduate School of Education; Societas Entomological Cechosloveniae; Citizen's Institute of Canada, Dominion Observatory; Assistant Secretary to the Government of India, Department of Education, Calcutta; Kingston Historical Society; Universitets Observatorium (Norway); Library of Congress; Lunds Universitet (Sweden); Massachusetts Agricultural Society; Institute of Technology; Massachusetts Historical Society; Michi-

gan Historical Commission; State University of Montana; New York State Tax Department; Nova Scotia, King's Printer, Halifax; Pennsylvania State College; Princeton University Press; Queen's University Library; Royal Observatory, Greenwich; University of St. Andrews; St. Lucia Government Office; Universidad Mayor de San Marcos, Lima, Peru; College of St. Thomas; Captain Scott Antarctic Fund; University of Stellenbosch; Union of South Africa; Thiel College; Toronto Public Library; University of Toronto; University College of Wales; Washington University (St. Louis); University of Washington Library.

Exchanges have been made with the following institutions. American Museum of Natural History; Trustees Amherst College, Mass.; Bryn Mawr College; Bureau of Railway Economics (U.S.); California University Press; Clark University Library; Columbia University Library; University of Illinois; Universita Karlova v Praze; University of Michigan; University of Minnesota; Ohio State University; University of Pennsylvania; Cuerpo Ingeneiros de Minas del Peru; Princeton University Library; Tchéchoslovaque International Exchange Service; Yale University.

Respectfully submitted on behalf of the Committee,

G. R. Lomer,
Secretary to the Committee.

ADDITIONS TO THE LIBRARY FROM JULY 1st, 1923, TO JUNE 30th, 1924

Donations.

	Volumes
Aberdeen University	2
Abo Akademi, Finland	2
Acorn Press, Philadelphia	1
Adams, C. C., Esq. (Presented to E. S. Wood Library of Ornithology)	2
Adams, Dean F. D.	17
Adams, Dean F. D. (Presented to the Blacker Library of Zoology)	1
Alba Publishing Company	1
Alberta Government	6
American Academy of Arts and Sciences	1
American Historical Association	1
American Magnesium Corporation	1
American Mining Congress	3
American Museum of Natural History	2
American Relief Clearing House	1
American Sabbath Tract Society	3
American Society for Testing Materials	1
American Society of Civil Engineers	1
Angus, Mrs. F. R.	1
Argentine Republic Government	1
Auckland University	2
Australia Government	1
Australian Museum, Sydney	1
Bankers' Trust Company	1
Barnes Collection	1
Bell, A. M., Esq.	1
Bertin, A., Esq.	1
Bibliographical Society of America	1
Bieler, Professor Charles	1
Binney & Smith Company	1
Birmingham University	1
Black, Dr. Melville (Presented to the Blacker Library of Zoology)	2
Blackader, Dr. A. D. (Presented to the Blackader Memorial Library)	10
Blackader, Dr. and Mrs. A. D. (Presented to the Blackader Memorial Library)	5
Bodleian Library, Oxford	10
Bourdillon, Miss Agnes	7
Bradshaw, Lawrence (Presented to the Baillie Library)	1
Bridgwood, C.E., Esq.	1
British Columbia Government	6

	Volumes
British Guiana Government	1
British Museum, Trustees of	6
British School at Athens	2
Brockhaus, F. A., Publisher	4
Brockville Society of Natural History	1
Brown University	1
Brunton, Sir Stopford	32
Buchanan, E. S., Esq.	4
Bureau of School Hygiene, New York	1
Burgess, T. J. W., Esq., M.D.	82
Buzza Publishing Company	1
Calcutta University	1
California Academy of Natural Sciences	1
California Fish and Game Commission (Presented to the Blacker Library of Zoology)	5
California University	3
Cambridge University	1
Canadian Government	62
Canadian Institute of Mining and Metallurgy	1
Canadian Manufacturers Association	1
Cape Town University	1
Cardenas, C., Esq.	1
Carnegie Endowment for International Peace	36
Carnegie Institution, Washington	11
Carnegie Trust	1
Carter, Estate of the late C. B.	1
Chemical, Metallurgical & Mining Society of South Africa	2
Chivers, Cedric, Esq.	1
Clark, W. A., Jr.	2
Cole, L. I., Esq. (Presented to the E. S. Wood Library of Ornithology)	2
Colorado Scientific Society	1
Columbia University	2
Comité Catholique des Amitiés françaises	12
Committee for the Celebration of the discovery of Zeeman Effect	1
Connecticut, Agricultural Experiment Station	2
Connecticut State Library	1
Coote, Miss B. A.	1
Cross, Family of the late Mr. Justice A. G.	8
Czechslovakia, Government	12
Dale, Professor, R. J.	17
Dawson, Dr. C. A.	1
Detroit, Board of the Water Commissioners	2
Donnelly, Edward, Esq.	1
Dresser, J. A., Esq.	2
Dunmar, William, Esq.	1
Du Plessis, E. L., Esq.	19
Durnford, Estate of the late Mr. George	18
Edinburgh University	2
Egypt, Exploration Society	1

	Volumes
England, His Majesty's Stationery Office	921
Eve, Dr. A. S.	1
Fairchild, The Misses (Presented to the E. S. Wood Library of Ornithology)	1
Ferres, James, Esq.	1
Field Columbian Museum	2
Franklin Institute	2
France, Government	2
Fryer, Dr. C. E.	4
Geddes, Patrick, Esq.	1
George Washington University	1
Glasgow University	2
Gordon, Nathan, Esq.	41
Gould, Miss M. C.	8
Gray, J. C., Esq.	1
Greenwich, Royal Observatory	8
Grenoble University	1
Hague, Frederick, Esq. (Presented to the E. S. Wood Library of Ornithology)	3
Harper, Mrs. Ida H.	3
Harrison, Dr. E. P.	1
Harvard University	15
Hemmeon, Dr. J. C.	1
Hessling, Bruno, Esq. (Through Dr. Lomer)	2
Hessling, Bruno, Esq. (Through Professor Traquiar)	1
Heubsch, B. W., Publisher	1
Higgins, Mrs. J. P.	1
Hornell, James, Esq.	1
Howell, Dr. W. B.	7
Hurlbatt, Miss Ethel	1
Iles, George, Esq.	57
Illinois State Geological Survey	2
Illinois State Historical Society	2
Imperial Institute, London	1
India, Superintendent of Government Press	1
Institute of Chemistry of Great Britain and Ireland.	1
Institute of Civil Engineering	5
Institute of Mechanical Engineers	3
Institute of Mining & Metallurgy, London	2
Institute of Naval Architects	1
Japan, Consulate General, Ottawa	1
Jaquays, E., Esq.	1
John Rylands Library, Manchester	2
Josephson, A. G. S., Esq.	1
Kansas, State Geologist	1
Keystone Publishing Company (Through Dr. Porter)	1
Kingston Historical Society	1
Knoche, Herman, Esq.	1
Kristiana Observatory	1
Kuroda, Nagamichi, Esq. (Presented to the E. S. Wood Library of Ornithology)	6
Lafleur, The late Professor P. T.	6

	Volumes
Leacock, Dr. Stephen	3
Learmont, Mrs. J. B.	41
Learmont, Mrs. J. B. (Presented to the E. S. Wood Library of Ornithology)	6
Leeds University	1
Leland Stanford University	1
Le Soudier, H., Esq.	1
Leyden University	1
Lighthall, Dr. W. D.	1
Livinson, A. J., Esq.	3
Lloyd, Professor, F. E.	2
Lomer, Dr. G. R.	22
London School of Economics and Political Science	2
London Society of Arts	2
London Zoological Society	5
Lyman Estate (Presented to Lyman Collection)	84
Macaulay, T. B., Esq.	3
McCormick, Cyrus H., Esq.	1
McDonnough, Dr. J. M.	2
Mace, W. A., Esq.	1
McGill College Book Club	56
McGill College Book Club (Presented to the Blacker Library of Zoology)	4
McGill University, Editorial Committee for the Year Book	3
McGill University Graduates' Society	3
McGill University, Law Faculty	5
McGill University Library School	3
McGill University, Medical Library	7
McGill University, Medical Library (Presented to the Blacker Library of Zoology)	19
McGill University, Observatory	5
McGill University, Physics Department	10
McGill University, Principal's Office	18
McGill University, Principal's Office (Presented to the Baillie Library)	1
McGill University, Registrars Office	23
McGill University Travelling Libraries	1
McGraw & Hill Book Company	1
McGruther, Alexander, Esq.	1
McKenzie, Dr. R. T.	1
McLennan, Miss	5
McLennan, Dr. Francis	65
McLennan, Dr. Francis (Presented to the Travelling Library Extension)	2
MacNaughton, W. G., Esq. (Presented to Baillie Library)	1
Macphail, Sir Andrew	1
Madras, Government Press	2
Maggs Brothers	1
Manitoba Government	5
Massachusetts, Department of Labor and Industries.	1

	Volumes
Mathews, E. B., Esq.	1
Mathewson, E. P., Esq.	1
Maryland, State Geologist	1
Melbourne University	1
Mecur, Mrs. Robert	1
Michigan, Department of Conservation	1
Michigan Historical Commission	1
Michigan University	2
Minnesota Academy of Natural Sciences	1
Mississippi Historical Department	1
Monetary Times Publishing Company	4
Morgan, F. Cleveland, Esq.	2
Morin, Victor, Esq.	1
Nansen, Fridtjof, Esq.	1
National Academy of Sciences	1
National Sculpture Society	2
National University of Ireland	1
New Brunswick Government	1
New York City, Board of Apportionment	1
New York, Public Library	1
New York State Tax Commission	1
New York, Railroad Club	3
New York State Library	1
New York University	1
New York University Club	1
New Zealand Government	3
New Zealand University	2
Newberry Library, Chicago	2
Newfoundland Government	1
Nichols, Dr. C. L.	3
Northampton, Town Clerk	1
Nova Scotia Government	4
Ohio, Geological Survey	2
Ontario Government	17
Ottawa, Corporation of the City of	1
Pennsylvania University	2
Pierce, Lorne A., Esq.	1
Pittsburgh Railway Club	3
Porter, Dr. J. B.	1
Poulton, Professor, E. B.	4
Princeton University	1
Princeton University (Presented to the Blacker Library of Zoology)	1
Proportional Representation Society	2
Pusa, Agricultural Research Institute	1
Quaritch, Bernard	1
Quebec Government	3
Quebec Literary and Historical Society	1
Queen's University, Kingston	8
Rawie, H. C., Esq.	1
Rennes University	4
Rhodes Trust	4

	Volumes
Rice, William, Publisher	3
Robertson, William, Esq.	2
Rockefeller, J. D., Jr., Esq.	1
Rosenberger, J. L., Esq.	1
Royal Colonial Institute	2
Royal Geographical Society	1
Royal Irish Academy	1
Royal Mint, Deputy Superintendent	1
Royal Society of Canada	2
Royal Society of London	8
Royal Zoological Society of New South Wales	3
Ruttan, Dr. R. F.	6
Saint Andrew's Society (New York)	1
San Marco University	1
Sandwell, Professor B. K.	13
Saskatchewan Government	7
Schwob, Maurice, Esq.	1
Shaw, Miss F. M. (Presented to the School for Graduate Nurses)	2
Sise, Miss	22
Smithsonian Institution, Washington	10
Snell, Professor J. F.	6
South Africa Government	3
Spector, J., Esq.	1
Stansfield, Dr. Alfred	21
Storer, Mrs. Bellamy	1
Stuart, C. J., Esq.	3
Syracuse University	1
Tasmania University	1
Taylor, F. B., Esq.	1
Technical Association of Pulp and Paper Industry	1
Tees, Dr. F. J.	2
Theological Seminary, Rochester	1
Thompson, Col. R. R.	1
Todd, Dr. J. L.	18
Tôhuku Imperial University	6
Toronto Public Library	4
Toronto University	5
Toronto University, Victoria College	1
Training of Hospital Executives, Committee on	1
Traquair, Professor Ramsay	5
Trinity College, Toronto	2
Troop, G. R. F., Esq.	1
Tulane University	1
Turner, P. J., Esq.	2
Union of South Africa Government	1
U. S. Government	72
U. S. Library of Congress	5
U. S. National Advisory Council for Aeronautics	1
U. S. National Bank of Commerce	3
Universities, Bureau of the British Empire	1
University Book Club	418

	Volumes
Vendanta Centre	3
Vermont Agricultural Experiment Station	1
Vermont State Library	2
Victoria University, Manchester	1
Wales University College	2
Wanklyn, F. L., Esq.	9
Washington University, Historical Society	2
Weir, R. S., Esq.	2
Wevrick, W. S., Esq.	1
Whitby, Dr. G. F.	6
Wickstead, J. W., Esq.	1
Wiley, John & Sons, Publishers	1
Willard, E., Esq.	1
Willey, Dr. Arthur	8
Williams, Professor Basil	2
Winnipeg City Clerk	1
Wisconsin University	11
Wood, Col. Casey A.	12
Wood, Col. Casey A. (Presented to the Blacker Library of Zoology)	29
Wood, Col. Casey A. (Presented to the E. S. Wood Library of Ornithology)	498
Wood, Mrs. Casey A. (Presented to the E. S. Wood Library of Ornithology)	1
Worthington, T. S., Esq.	1
Yale University	5
Y.M.C.A., Trustees of the War Fund	2
Zappe, A., Esq.	2
Source Unknown	50
Source Unknown (Blacker)	3

Not Previously Entered

Molson Bequest	2
Robson, Dr. John	1
Source Unknown	57

Purchases

Applied Science	107
Architecture	52
Baillie Fund	321
Blackader Memorial Fund	119
Blacker Library of Zoology	1906
Botanical Laboratory	3
Botany	105
Caution	131
Chemical Laboratory	4
Chemistry Department	5
Civil Engineering	20
Classics	48
Classics Special	3
Comparative Literature	52

	Volumes
Dawson Memorial Fund, The Sir William	29
Douglas Fund, The Dr. J. D.	85
Drummond Fund, The Dr. W. H.	29
Economics	87
Economics Special	9
Education	43
Education Special	5
Electrical Engineering	12
English	177
English Special	4
Fine Arts	58
General	2935
Geodesy and Surveying	27
Geology and Mineralogy	45
Germanic Literature	115
Germanic Literature Special	125
Gould Memorial Fund	3
Hersey Fund	14
Hickson Fund, The Lady	161
History	127
History Special	13
Industrial Engineering	13
Law	730
Law Caution	2
Library School	4
Logic	25
Lyman Fund, The H. H.	61
Maccabean Circle	1
Macdonald Philosophy	30
McGill University Papers Fund (Douglas)	2
McLennan Fund, The Dr. Francis	18
McLennan Fund, The H. S.	1
Macphail Fund, The Dr. J. B.	1
Mathematics (Applied Science)	8
Mathematics (Arts)	18
Mechanical Engineering	21
Metallurgy	13
Mining	17
Modern Languages	18
Modern Languages Special	56
Molson Fund	84
Moral Philosophy	40
Music	11
Oriental and Semitic Languages	26
Physics	227
Psycho Physics	121
Redpath Fund, The Alice	4
Redpath Fund, The J. R.	42
Redpath Fund, The W. W.	11
Roddick Fund, The Lady	29
Roddick Fund, The Sir Thomas and Lady	1
Romance Languages	97

	Volumes
Royal Victoria College	35
R.V.C. Caution	17
School for Graduate Nurses	39
School of Commerce	47
Social Science (Economics)	57
Social Sciences No. 2	65
Torrance Fund	19
Travelling Libraries Theology	36
War Literature	1
Wood Fund, The Col. Casey A. (For the E. S. Wood Library of Ornithology)	101

Exchanges

Adelaide University	1
American Museum of Natural History	4
Amherst College	2
Arnold Arboretum	1
Bryn Mawr College	4
Cambridge Philosophical Society	3
Chicago University	6
Clark University	1
Colliery Guardian	1
Columbia University	55
Field Naturalists' Club, Brisbane	1
Havana University	2
Illinois University	13
Johns Hopkins University	12
Manchester University	12
Melbourne University	1
Michigan University	8
Minnesota Historical Society	1
Minnesota University	5
Missouri University	2
New York University	1
Pennsylvania University	14
Princeton University	8
Queen's University, Kingston	1
Royal Astronomical Society	1
Royal Geographical Society	2
Saint Andrews' University	2
St. Louis Public Library	1
Smithsonian Institution	3
Toronto University Library	3
Trinity College	3

	Volumes
Upsala University	1
Upsala University (Blacker)	6
Wisconsin University	1
Yale University	3

Presentations	3780
Purchases	9128
Exchanges	195
	13103

TRAVELLING LIBRARY REPORT FOR THE YEAR 1923-24

The year having been changed this report covers three months which were included in the last report. From July 1st, 1923 to June 30, 1924, there were 115 libraries sent out to 67 places. 42 of these libraries were distributed to 26 different places in Quebec; 13 to seven places in Prince Edward Island; one to Labrador; 7 to five places in New Brunswick; 27 to nineteen places in Nova Scotia; one to Ontario; 22 to six places in Manitoba; and 2 to two places in Saskatchewan. There were 16 renewals. The places in the different provinces were:—

Quebec:—Arundel, Athelstan, Bedford, Bolton Centre, Coaticook, Compton, Cookshire, Danville, Elgin Road, Hemmings Falls, Knowlton, La Gabelle, Metapedia, Ormstown, Percé, Rawdon, Richelieu, Rosemount, Sayabec, Shawinigan Falls, Sherbrooke, Sweetsburg, Thetford Mines, Upper Bedford, Valleyfield, Waterloo.

Prince Edward Island:—Bay View, Bedeque, Kensington, Lower Bedeque, Sea View, Souris, Summerside.

Labrador:—Harrington Hospital.

New Brunswick:—Bathurst, Moncton, Rothwell, St. Martins, St. Stephens.

Nova Scotia:—Bass River, Bear River, Caledonia, Chester, Eureka, Hebron, Hopewell, Lower Granville, Milton, New Glasgow, Noel, N. Brookfield, North Sydney, St. Peters, Scotsburn, Sheet Harbour, Tatamagouche, Waterville, West Gore.

Ontario:—Almonte.

Manitoba.—Brandon, McConnell, Portage La Prairie, Virden, West Kildonan, Whitewater.

Saskatchewan:—Swift Current, Weyburn.

Kenogami, which has long been one of our largest patrons and to which we sent 15 or 20 libraries a year, was given a library of its own, so that we did not send them any libraries this year.

We are at last able to report that we have sent a library to the Grenfell Mission Hospital at Labrador, and we also presented them with 44 volumes withdrawn from our libraries, which were gratefully acknowledged.

The work among the libraries in this province and others has grown. Knowlton, Sherbrooke, Waterloo still receive libraries regularly from us, as also does the I.O.D.E. Library at Moncton, N.S., and at Summerside, P.E.I., Virden, Man., and Portage La Prairie, Man.

New York has been undertaken in making up libraries specially for the "Canadian Girls in Training" Clubs, and Tuxis Square Groups. A library on "The League of Nations" was sent to Hebron, N.S., and a Theological Library to Cookshire.

There have been many letters of appreciation which show that the work is worth while, even though the num-

bers are not very large. Weyburn, Sask., reported 151 non-fiction readings, and the Teachers' Association at West Kildonan, Man., 181 non-fiction.

Four requests from Saskatchewan and three from Ontario were referred to their respective provinces, but we still have to keep on two places in Saskatchewan and one in Ontario.

64 stereoscopes and 9 pictures went with the libraries.

Lectures were sent out 129 times to churches, Y. M. C. A.'s, etc., and about the city, and also to Brownsburg, Compton, Cowansville, Fitch Bay, Lachute, Lennoxville, Metis Beach, Mille Isles, Ormstown, Pointe aux Trembles, St. Lambert, Sawyerville, Sherbrooke, Sutton, and Sweetsburg—in Quebec; Hebron, Port Maintland and Yarmouth North in Nova Scotia; Becker, Chatham (Ursuline Convent), Shanley, Whitebread, Windsor—in Ontario.

Travelling Libraries

Purchases	528	Libraries sent out	115
Replaced	12	Renewals	16
	540	Stereoscopes	64
Donations	36	Pictures	9
	576	Lectures	129
Lost	24	Reported by McGruther.	69
Withdrawn	59	Volumes in Library	9563
	83		
Previously reported lost and returned	493 5		
	498		

Respectfully submitted,

E. G. HALL,
Lib. Trav. Lib. Dept.

MEDICAL LIBRARY

Honorary Librarian:—C. F. Wylde, C.B.
Assistant Librarian:—Miss Jean Cameron.

Assistants: Miss Patricia Burns.
Miss Pauline M. Carrière.
Miss C. Davidson, B.A.
Miss Edith R. Gordon.

"The history of the Library is the history of the Faculty,"
Prof. Hal.

The Library occupies the central part of the new building, the whole front of the second and third floors, as well as a portion of the first floor. On the third floor is the reading room, 76 x 24 feet, exceptionally well lighted, and capable of accommodating 75 readers. On this floor also are the journal room and private offices. The second floor contains the stack room, the book stacks having a total capacity of sixty thousand volumes.

A special feature of the Library is the journal collection, and every effort is being made to complete this section as far as possible and thus to increase the value of the reference department of the Library.

There is also a great duplicate collection of journals from which distribution can be made on the exchange basis.

There is no printed catalogue, but there has been compiled a comprehensive list of continuations with their inclusive volumes, and this list will be available for loan by out-of-town borrowers.

The Library is for the use of the members of the Teaching Staff, graduates of the Medical Faculty of the University, under-graduate students in the Faculty, graduates from other colleges showing proper credentials, and registered nurses. It is felt that graduates living at a distance are not aware of the fact that books may be borrowed from the Library on payment of carriage both ways.

The Library is closed on Sundays, but is otherwise open daily during term from 9.00 a.m. to 6.00 p.m., except Saturday, when it closes at 5.00 p.m., and after Convocation it is open from 9.00 a.m. to 5.00 p.m., Saturdays 9.00 a.m. to 1.00 p.m. During July and August it is closed all Saturday.

STATISTICS

July 1st, 1923—June 30th, 1924.

Readers	11,187
Books loaned	5,722
Journals loaned	1,673
Accessions	1,814
Binding	1,231

Cataloguing.—

Recent accessions	2,280
Re-cataloguing	1,627
Replacements	15
Unbound (unaccessioned and incomplete) volumes of continuations	758
Total	4,680

The following journals have been subscribed to during the current year:

Acta ophthalmologica; British journal of anaesthesia; Briitsh journal of experimental biology; Journal of abnormal psychology and social psychology; Journal of sexology and psychoanalysis.

This increases the number of current journals being received at the Library to 314.

We have this year received donatoins from the following:

Abbott, Dr. Maude E.; Barker, Dr. L. F. (Baltimore, Md.); Bassler, Dr. Anthony (New York City); Bender Hygiene Laboratory (Albany, N.Y.); Birkett, Dr. H. S.; Blackader, Dr. A. D.; Brownne, J. S. (N.Y.A.M.L. Librarian). Bulkley, Dr. L. D. (Riverdale, N.Y.); Canada—Department of Health, (Ottawa); Canadian Medical Association Journal; Carnegie Institution of Washington—Nutrition Laboratory (Boston); Condon, Dr. J. H.; Eagle, Dr. W. P. (Newark, N.J.); Egypt, Cairo—Government Publication Office; French, Dr. T. R. (Brooklyn); Garrow, Mrs. A. E.; Harvard Medical School, Proctor Fund Committee (per Dr. J. H. Means); Haywood, Major A. K.; Henry, Dr. C. K. P.; Hess, Dr. A. F. (New York City); Hunt, Dr. J. R. (New York City); John McCormick Institute for Infectious Diseases (Chicago); Johns Hopkins University, Pharmacological Laboratory (Baltimore); Langstroth, Dr. F. W. (New York City); Lewis, Dr. D. S.; Martin, Dr. C. F.; Massachusetts General Hospital (Boston); Medical Research Council (London, Eng.); Metropolitan Life Insurance Co. (New York City); Ontario—Provincial Board of Health (Toronto); Redpath Library; Registrar's Office; Roddick, Miss; Rolleston, Sir Humphry (London, Eng.); Sharpe, Dr. Norman (New York City); Sharpe, Dr. William (New York City); Shepherd, Dr. F. J.; Struthers, Dr. R. R. Synnott, Dr. M. J. (Montclair, N.J.); Todd, Dr. J. L.; Fail, Drs. D. T. and H. M. (Cincinnati, O.); Webster, Mr. H. E.; Williams, Dr. C. M. (New York City); Wood, Dr. C. A. (Chicago); Young, Dr. H. H. (Baltimore).

C. F. WYLDE,
Hon. Librarian.

DEPARTMENT OF ARCHITECTURE

During the past year there were 34 students in the Department, an increase of twelve over the previous year. Three students graduated. Mr. Leslie A. Perry, who graduated from the Department last year, was awarded the travelling scholarship in Architecture offered by the Royal Canadian Academy of Arts and open to architects throughout Canada. Mr. F. B. Macduff, Year III, was awarded a travelling scholarship for the study of architecture in the Province of Quebec by the Province of Quebec Architectural Association.

Mr. Henry Sporatt, LL.D., R.C.A., and Mr. J. Cecil MacDougall, B.Arch., A.R.I.B.A., were appointed by the Royal Institute of British Architects as external examiners to the Department.

Under the present arrengement with the Royal Institue, graduates of McGill University in Architecture are admitted to candidature as Associates R.I.B.A. on passing a special and limited examination.

A number of casts of mediaeval sculpture and ornament and several original examples of Georgian architectural woodwork were added to the museum.

An extension course on "The History of the House" was given by Mr. Traquair and Mr. Carless. It was well attended.

The Sketching Class visited Boston for the study of American Colonial architecture.

RAMSAY TRAQUAIR,
Macdonald Professor of Architecture and
Head of the Department.

DEPARTMENT OF BOTANY

I beg herewith to make the Annual Report of the Department of Botany, for the year 1923-1924.

There have been only minor changes in the curriculum, chief of which is the further development of the work in ultramicroscopy as part of the course in General Physiology. This, while of particular practical importance to students in medicine, is of importance to all students of biology. During the coming session an opportunity for this method of microscopy will be given to all students in the Department.

Since it is necessary to remove the Herbarium from the Redpath Museum, it is hoped that it will be possible during the coming session to provide for the collection, which is of very considerable historical interest, in the Biological Building. The Department has been the recipient of the personal herbarium of Dr. T. J. W. Burgess, and of his valuable botanical library, both of very great use and interest.

A reasonable amount of time has been found for research work, chiefly in the field of cellular physiology. Appended is a list of publications by members of the staff. Of work being done, but which has not yet come to fruition for publication is that on the taxonomy of the St. Lawrence valley species of the cockleburr (Xanthium). Miss Symons is testing the species by cultural methods. It is expected that her findings will throw light on the difficult diagnosis of this curious genus.

The extension lectures given by Professor Derrick have been faithfully attended by a very interested group of students.

We have noted an improvement in the attitude of the students in a more spontaneous use of the library, especially in the reading of original papers.

F. E. LLOYD.

DEPARTMENT OF CHEMISTRY

Undergraduate Instruction

The attendance during the past session was, on the whole, about the same as in the previous year, but was marked by a very large increase in the number of students taking pass and honour courses in the Faculty of Arts and a smaller number taking the courses leading to a degree in Chemical Engineering. To meet the increased laboratory requirements for Elementary Chemistry in the Faculty of Arts, arrangements have been made to relieve the congestion in the Chemistry Building by having a number do their practical work in the Biological Building.

The demonstrators for the session of 1923-24 were Messrs. A. Cambron, G. W. Holden, K. W. Hunten, R. S. Jane, Paul Larose, C. Sivertz, E. W. R. Steacie, W. W. Thomson and F. H. Yorston.

Graduate Instruction and Research

A number of members of the Graduate School and demonstrators have received awards from the Honary Advisory Council for Scientific and Industrial Research. The Ramsay Memorial Fellowship, valued at $1,500, for research in England, was awarded to Mr. E. H. Boomer this year for the second time. He is carrying on research at Cambridge under Sir Ernest Rutherford. In addition to this major award, Fellowships, valued at $1,200, were awarded to Messrs. J. H. Mennie and L. A. Munro; Studentships, of the value of $1,000, to Messrs. H. R. Chipman, Paul Larose and W. W. Thomson; and Bursaries, of the value of $750, to Mr. R. S. Jane, Miss I. J. Patton, Miss C. E. Robertson, Messrs. C. Sivertz and F. H. Yorston.

The total number of graduate students in the Department was twenty, of whom ten were proceeding to the degree of Master of Science, eight to that of Doctor of Philosophy, and two were doing advanced work to qualify for entering upon the M.Sc. course. Three obtained the degree of Ph.D. at the Convocation in May, 1924, and nine the degree of M.Sc. The titles of the various thesis of the graduating students will be found in the Report of the Faculty of Graduate Studies and Research.

Dr. Paul G. Hiebert was awarded the Governor General's Silver Medal for the best scientific thesis in the Faculty of Graduate Studies and Research, and the Sterry Hunt Scholarship, of the value of $1,000 per annum, was awarded for the first time. Dr. L. J. Waldbauer received this Scholarship to enable him to continue his important researches on the specific heats and latent heats of fusion.

Papers Published and Research Work in Progress in the Department of Chemistry during the Session of 1923-24

Synthesis of Margarines and some Mixed Fats.
Dr. R. F. Ruttan and Mr. W. W. Thomson.

Rubber—Chapter in "Colloidal Behavior," ed. R.H. Bogue, Vol. II, 652-682 (New York, 1924).
Dr. G. S. Whitby.

The Acidity of Raw Rubber, India-Rubber Journal, Sept. 6th, 1924, *et seq.* (Lecture before the Institute of the Rubber Industry, London).
Dr. G. S. Whitby.

Some Heavy-metal Salts of Disubstituted Dithiocarbomic Acids. Proc. Roy. Soc. Can., 1924, (in the press).
Dr. G. S. Whitby and Mr. G. L. Matheson.

The Molecular Refraction of Natural and of Methyl Rubber. Proc. Roy. Sec. Can., 1924, (in the press).
Dr. G. S. Whitby and Mr. A. D. Macallum.

The So-called Electro-viscous Effect in Rubber Soles. India Rubber World, 1924, 70, 795 (abstract only). (Paper read before the Second National Colloid Symposium, Northwestern University).
Dr. G. S. Whitby.

Studies of Vulcanization Accelerators, Part III. (Not yet published).
Dr. G. S. Whitby and Prof. H. E. Simmons, Akron, Ohio.

Examination of the Liquid Acids of Hevea Resin. (Not yet published).
Dr. G. S. Whitby and Mr. F. H. Yorston.

The Relation between the Dielectric Constants of Liquids and their Ability to Swell Rubber. (Not yet published).
Dr. G. S. Whitby and Mr. F. McI. Smith.

The Influence of Various Additions on the Viscosity of Caoutchouc Sols. (In progress).
Dr. G. S. Whitby and Mr. R. S. Jane.

Observations on the "Drying" of Linolic Acid, and Determinations of the Acid Numbers of Rubber Samples. (In progress).
Dr. G. S. Whitby and Mr. F. H. Yorston.

Piperidinium Soaps. (In progress).
Dr. G. S. Whitby and Mr. J. M. Allan.

Hydrogen Peroxide as an Oxidizing Agent in Acid Solution. Trans. Roy. Soc. Can., Vol. XVII, 119, (1923).
Dr. W. H. Hatcher.

Hydrogen Peroxide as an Oxidizing Agent in Acid Solution. Pt. II. (In the press).
Dr. W. H. Hatcher and Mr. G. W. Holden.

The Diffusion of Oxygen through Silver. Jour. Amer. Chem. Soc. Vol. XLVI, No. 6, June, 1924.
Dr. F. M. G. Johnson and Mr. Paul Larose.

The Viscosities of the Liquid Halogens. (Not yet published).
Dr. F. M. G. Johnson and Mr. E. W. R. Steacie.

The Relations Existing between the Degree of Unsaturation of an Organic Compound and the Amount of its Adsorption by Charcoal. (Not yet published).
Dr. F. M. G. Johnson and Miss I. Jocelyn Patton.

The Adsorption of Vapors by Alumina. (Not yet published).
Dr. F. M. G. Johnson and Mr. L. A. Munro.

The Adsorption of Certain Vapors by Alumina. (In progress).
Dr. F. M. G. Johnson and Mr. L. A. Munro.

Molecular Attraction and Molecular Combination. Jour. Frank Institute, Vol. CLXXXVII, 145. (1924).
Dr. O. Maass.

Vapour Pressures of Inorganic Compounds. Int. Crit. Constant Tables.
Dr. O. Maass.

The Gaseous and Liquid States of Aggregation. Published in symposium by H. S. Taylor on "A Treatise on Physical Chemistry."
Dr. O. Maass.

Hydrogen Peroxide, IV. Action of the Halogens and the Halogen Hydrides. Jour. Amer. Chem. Soc. 46, 290. (1924).
Dr. O. Maass and Mr. P. G. Hiebert.

Effect of Molecular Attraction on the Total Pressure of a Gas Mixture. Trans. Roy. Soc. Can., 19, 116, (1924).
Dr. O. Maass and Mr. D. M. Morrison.

Hydrogen Peroxide, V. Vapour Pressure. (In the press).
Dr. O. Maass and Mr. P. G. Hiebert.

Molecular Attraction and Velocities of Reaction at Low Temperatures of Unsaturated Hydrocarbons. (In the press).
Dr. O. Maass and Dr. C. H. Wright.

The Specific Heats and Latent Heats of Fusion of Ice and of Several Organic Compounds. (In the press).
Dr. O. Maass and Dr. L. J. Waldbauer.

Surface Tensions and Densities of the Fatty Acids. (Not yet published).
Dr. O. Maass and Mr. K. W. Hunten.

Specific Heats of Compressed Ethylene. (Not yet published).
Dr. O. Maass and Dr. L. J. Waldbauer.

Variation of Van der Waals' "b" with the temperature. (Not yet published).
Dr. O. Maass and Mr. J. H. Mennie.

Velocity of Reaction between Hydrogen Chloride and the Olefines. (Not yet published).
Dr. O. Maass and Mr. C. Sivertz.

Conductivities of Aqueous Solutions of HBr2 and SO2. (In progress).
Dr. O. Maass and Miss C. E. Robertson.

Two Component Gas Systems. (In progress). Dr. O. Maass and Mr. J. H. Mennie.

The Heats of Solution of the Alkali Halides. (In progress). Dr. F. M. G. Johnson, Dr. O. Maass and Mr. H. R. Chipman.

The Effect of Carbonation on Bacteria in Beverages. Jour. Amer. Pub. Health ssoc., Feb., 1924. Dr. A. R. M. MacLean, in association with others.

The Baillie Library

The Baillie Library of Chemistry was formally opened in December last with a reception at which were present the Principal, the senior members of the various scientific departments of the University and a large number of ladies. The library is now in charge of Miss Henderson. Since the endowment of the library by the late Mr. John Baillie, the department has been able to complete to date a number of its sets of valuable periodicals and journals, besides subscribing for others and purchasing many of the most recent works pertaining to chemistry. The reading room was used constantly during the session by members of the department, readers from other Faculties and chemists in the city and district of Montreal. A course on Chemical Bibliography was given by Dr. Waldhauer last session for the first time.

The meetings of the Chemical Society were particularly well attended not only by the senior students and members of the staff in the department of Chemistry, but also by members of the staff and graduate schools of the other scientifc departments of the University.

DEPARTMENTS OF MINING AND METALLURGY

During the year there was a considerable increase in the number of classes in both Mining and Metallurgy, and the work of the laboratories suffered appreciably from congestion, in spite of the fact that many improvements had been made in the lay out of the equipment. Further changes are planned for next year but the laboratory instruction will undoubtedly remain unsatisfactory to those responsible for it until the Mining Department can be transferred to the proposed new building and its present quarters utilized for the enlargement of the Metallurgical establishment.

The permanent staff of both Departments remained unchanged during the year. The four graduate Research students appointed last autumn all completed successful investigations during the Session, as also did the holder of the travelling scholarship of the University of South Africa. Three new men have been appointed in their places from the graduating class of 1924, two for Fellowships in Mining and one on the Metallurgical Scholarship. Additional appointments will probably be made in the autumn.

In the Department of Mining the most important addition to the equipment was a Dorr Thickener of semi-commercial size. This apparatus together with the mechanical filtration equipment installed last year is proving of great value. Additional modern screening apparatus is now on order thanks to a grant from the Research Council, but further important additions to the laboratory equipment will scarcely be possible until more space becomes available. Several other useful but less important additions were made and the laboratory considerably modernized by rearrangement of apparatus, but these changes have added to the congestion and have involved the retirement of other appliances of almost equal value.

The research work of the Department has been continued by the present staff and the Fellows, the most important investigations being:

(a) A study of sedimentation with especial reference to the design of settling tanks.—R.F.

(b) An investigation of recent methods of combined flotation and concentration in comparison with the standard method of cyanidation now employed in the Porcupine district.—R. E. Legg.

(c) The character of the gold in Johannesburgh banket ore and the relation of fineness of grinding to recovery in the cyanidation of such ores.—J. J. Snijman (South Africa.)

(d) A time efficiency study of laboratory screening apparatus. (This investigation will be continued in the immediate future.)—J. J. Snijman, J. E. Becking.

Additional but less important investigations were carried out by undergraduate students, aided by the staff, on:—

(a) The flotation of Eustis Mine ore.
(b) Flotation vs. Cyanidation of the Hollinger ore.
(c) The settlement of slimes with coagulents.
(d) A comparison of a considerable number of anthracite coals obtained under market conditions from Montreal dealers.

Certain interesting and valuable ore dressing tests were also made by the Departmental staff for commercial interests in accordance with arrangements whereby students were enabled to observe the work and the sums paid for the tests were expended on equipment. The most important of these was a successful study by Professor Bell of the separation of asbestos fibre by wet methods.

In the Department of Metallurgy the additions to the equipment include a complete outfit for giving instruction in metallurgical works analysis, a temperature controlling attachment to the Leeds and Northrup Potentiometer Recorder, a 12 K.W. Hoskins electric assay and heat-treatment muffle and a Freas constant temperature electric drying oven.

The research work in the Department included:—

(a) A study of the constitution and heat of formation of nickel-copper matte.
(b) An investigation of the production of pure titanium oxide from ilmenite.
(c) The production of malleable castings.
(d) The solubility of temper carbon and cementite in solid iron.
(e)The relation between the hardness of steel and the temperature at which it was quenched.
(f) The electrolysis of fused slags.
(g) The interdiffusion of metals at temperatures below that of fusion.

A number of commercial tests were also made for manufacturing establishments.

J. B. PORTER,
June 10th, 1924. Director of Mining.

DEPARTMENT OF PHARMACY

The session of 1923-24 marked the seventh annual course in Pharmacy since the Faculty of Medicine took over the work previously carried on by the original Montreal College of Pharmacy.

It is gratifying to note the increase in the number of students registered in this department, as during this session fifty-four attended the various courses given and although the number who obtained their diplomas was slightly less than in the past year, this can naturally be accounted for by the fact that so many junior students have entered and were naturally, not qualified to obtain their diploma.

In issuing the syllabus for the department for the coming session it will be noted that the term is now a three year course and the subjects will be divided as per the 1st, 2nd and 3rd year, as it has been found in the past that the students could not attend the necessary number of lectures and obtain their diplomas within the time allotted to them, namely, two years.

The aim of the head of the department is to make the course consistent with or even more advanced than that required by various other colleges throughout the continent as the success of our students before the licensing body of the province, namely, the Pharmaceutical Association of the Province of Quebec, has been very apparent. The courses of lectures which are given comply with the provincial law, and although we have always done so in the past we are augmenting this course whereby we now require a three year term to be completed before the student can obtain his diploma from McGill University.

The year closed has marked the progress of the society entitled "The Pharmaceutical Association of McGill University," and it is very pleasing to note that not only the students who are active in their work during the present session but those who have obtained their diploma maintain a keen interest in the work of the association and, particularly are they anxious to obtain some suitable degree, such as Bachelor of Pharmacy, or M-Sc. in Pharmacy, which degrees are given throughout Canada and United States. It is, of course, unnecessary to say that the department works in perfect harmony with the licensing body of this province and will endeavor to further the interest of Pharmacy, when considered from both a technical and practical source.

It is therefore hoped that the University will in the near future see fit to meet with the request, not only, of the Pharmaceutical Association but of him who considers it a privilege to be head of the department.

A. L. J. MOORE,
Director Dept. of Pharmacy.

MACDONALD PHYSICS BUILDING

The Director received the honor of election by the Council of the American Physical Society.

Dr. H. T. Barnes, F.R.S., is resuming lectures on heat and thermodynamics. He has, during the session, given a series of lectures on Ice Formation to various Engineering Institutes in Quebec and the eastern provinces.

The mathematical investigations and physical research work of Dr. L. V. King received recognition by his election as a Fellow of the Royal Society of London. This author has written a book on "Elliptic Integrals" which will shortly be issued by the Cambridge University Press. His recent contribution to the "Proceedings of the Royal Society" on "Molecular Scattering" is noteworthy.

Dr. A. N. Shaw has done further work on hygrometric instruments and together with Professor H. E. Reilley and Mr. R. J. Clark continued observations on the ageing and temperature co-efficient of Weston cells.

Dr. D. A. Keys has continued his investigation on piezo-electricity, with particular attention as to the effect being isothermal or adiabatic.

Dr. E. S. Bieler, after three years' research work at the Cavendish Laboratory, Cambridge, was appointed Assistant Professor in September, 1923. He has recently published, in the "Proceedings of the Royal Society of London," the results of an investigation on the character of the field near the nucleus within the atom, using the alpha-particles of radium for exploration.

Miss Henry, after valuable work as a demonstrator and doing research work on tidal problems, has left the staff on the occasion of her marriage.

Miss A. V. Douglas has made some contributions to Astronomy, published in the Monthly Notices of the Royal Astronomical Society.

Miss M. Crowe is bringing to completion a precision measurement of the conductivity of calcium chloride in concentrated solutions.

Two demonstrators, Mr. R. J. Clark and Mr. W. C. Quayle, are absent on leave, doing research work at the Cavendish Laboratory, Cambridge.

Dr. J. A. Gray, after several years as Associate Professor at McGill, has accepted a full research professorship at Queen's University. Dr. Gray's work on roentgen rays and his valuable services on sound ranging during the war are well known.

Dr. J. S. Foster, Ph.D., Yale, has been appointed Assistant Professor for the ensuing session. This young Canadian has for over three years in succession held a Research Fellowship in the United States and his investigations on the Stark effect are noteworthy.

During the session, Miss A. I. McPherson and Mr. A. L. Patterson have carried out research work as bursars of the Honorary Advisory Council for Scientific and Industrial Research.

Mr. A. L. Patterson, after taking his M.Sc. Degree, has been elected to a Moyse Travelling Scholarship and will proceed to England with the intention of working under Sir William Bragg at the Royal Institution.

Professor A. H. S. Gillson has given a course of popular lectures in Astronomy which were enthusiastically attended.

Mr. H. E. Reilley gave a course on Sound to members of the Medical Faculty who were professionally interested.

Dr. L. Silberstein of the Eastman Kodak Company gave three lectures on a new theory with respect to the movement of distant stellar and nebular bodies. This theory, which is an extension of the work of Einstein and de Sitter, has attracted and is likely to attract considerable attention.

Mr. Walter Stewart has made gifts of apparatus of a valuable character, namely: a powerful electromagnet, made by the Société Genevoise in Switzerland; a new X-ray spectrograph, manufactured by the General Electric Company; and a spectrograph with lummer plate and other additions, made by Hilger of London. These additions to the apparatus will be most helpful in the training of the growing School of Graduate Studies.

The Macdonald Physics Building Library, designated the Barnes Collection, now consists of about fifteen hundred well selected works on physics and allied subjects. It is also well furnished with all the leading scientific journals on Physics. The success of this growing library rests with Dr. Lomer, Dr. Shaw and Miss E. Henry.

Instruction by lectures and by laboratory work to graduate and undergraduate students has been carried out in an efficient manner, and the general discipline of the students has been praiseworthy. The Honor School in Physics and in Engineering Physics has maintained a good standard, but a larger number of able, well-trained students from the High Schools is most desirable.

A. S. EVE.

July 23, 1924.

DEPARTMENT OF PHYSICAL EDUCATION

Participation by all in a properly supervised programme of physical activity is the object of the Department of Physical Education, and it is pleasing to note the added interest and enthusiasm which has been shown during the past Session. In looking back over the past few years it is gratifying to note the progress that has been made in both participation in, and attitude toward Physical Education. It is all the more pleasing when the general trend of to-day is observed, the apathy toward exertion, the craze for purchased amusement, the desire to observe rather than participate, and the total disregard of physical welfare on the part of many of our young men and women.

It is splendid to note the importance that is being attached in our educational institutions to physical education as a necessary and important part of the general education of the individual. The benefits to be derived are not merely confined to physical well being alone, but also to the mental and moral welfare of the individual.

The general programme of the Department has been carried out as in former years, particular attention being paid to the examination and categorization of students for their own protection as well as the protection of the whole student body. 1,365 men and 248 women students, making a total of 1,613, were examined during the Session. All students of the first two years and all students who took part in the competitive athletics were examined. It is interesting to note the comparative figures of the students who were insignia winners in athletics as compared with the general student body.

	Age	Weight	Height	Chest Con.	Chest Exp.	Waist	Lungs
Average of all measurements taken	19.9	130.7	67.7	32.2	35.1	27.5	213.2
Average of "M" winners	21.4	146.2	68.3	33.6	37.2	28.9	263.9

The various Faculties again co-operated in making the majority of these examinations possible during the first few days of the Session. A complete dental examination was again made of all first and second year students through co-operation with the Faculty of Dentistry. Special physical tests were conducted for the first time for the majority of the first year students. This has been done with a view to securing information on which it is hoped to base a programme of "Efficiency Tests" for all stu-

dents of the first and second years and which might possibly form a requirement in addition to the medical examinations for all students taking part in athletics.

The adoption by the Canadian Intercollegiate Athletic Union two years ago of a regulation requiring students to be properly qualified academically before being permitted to take part in Intercollegiate athletics has been the cause of much discussion concerning the relation of athletics to academic standing. There have been many cases in the Intercollegiate Union where students have not attained a sufficiently high enough standard to be permitted to take part in athletics, and such cases have led to the belief that athletics as now conducted interfere with the progress of a student in his academic work. Undue importance is attached to the star athlete who is on the border line academically, and opinions are frequently formed concerning the influence of athletics, on very limited information and insufficient investigation. An endeavour is now being made to get accurate figures from the Faculties in order to study the standing of those students who are prominent in athletics with the standing of the general student body. It is fair to assume from the evidence at present available that those students who are most active in the various types of athletics are on the average, better students academically than those who are not so active physically. The numerous other qualities which are attained in properly supervised athletics and which mean so much to the future welfare of the individual cannot be measured nor tabulated.

For the past Session an investigation carried on in the Faculty of Applied Science gives the following figures:—

		Passed all Exams.	Failed in 1-2 subjects	Failed in 3 or more subjects
Total No. registered in Applied Science, I, II, III	369	26.8%	31.1%	32%
Insignia winners	70	28.6%	27.1%	44.2%

Further investigations are being carried on, the results of which will be made known as soon as the figures are available.

The creation of the Athletic Board and the reorganization of the athletic programme, under the direction of Major D. S. Forbes, has after one year of its operation been declared a decided success. There has been a much closer working relationship between Graduates, Students, and Teaching Staff, the policy is definitely a University policy, and the result has been a much more efficient

administration of athletics in the University. The usual intra-mural and Intercollegiate competitions have taken place, a gratifying increase being noted in the number of leagues and competitors.

The University Health Service, under the supervision of Dr. F. W. Harvey, has continued to fill its important place in the student life. More consultations have been held and a larger percentage of the student body have availed themselves of this service.

The School of Physical Education has grown to capacity, 54 full time and 53 partial students from all parts of the country being a record registration. There is an ever increasing demand for properly qualified teachers, a gratifying sign that educational institutions are recognizing the need of trained leadership in physical education. The School Hostel is now entirely occupied by students of the School, several students who desired residence therein had to secure accommodation elsewhere.

The Committee desires to express its appreciation of the very valuable service rendered by the Staff of the School, especially Miss E. M. Cartwright, Miss Ethel Wain and Miss Ruth Harvey, by whom the burden of the practical work was so ably carried. The Committee's appreciation is also expressed to all the members of the teaching and coaching staff, whose duties were carried out most efficiently. Inadequate accommodation through the lack of a proper gymnasium has increased the difficulty of properly carrying out as complete a programme as is desired, and it is earnestly hoped that a new building will be constructed in the near future. The co-operation of other Departments and Faculties has made possible the growth of the Department and its School and the Committee desires to express its appreciation for the assistance that it has received.

The general trend in athletics toward overspecialization and commercialism, and the difficulties under which the programme is being carried on are causing the Committee some concern, but it is encouraged by the increasing demand for trained supervision, the wider recognition of more physical values, and the sympathetic help of those interested in the problems of Physical Education.

A. S. Lamb,
Director.

DEPARTMENT OF ZOOLOGY

In the Bulletin of the Faculty of Arts for 1922-23, p. 45, under "General Restrictions," the first clause provided that a course intended for First Year Students may be counted only as a half course in the Third and Fourth years. In the University Calendar for 1923-24, p. 126, the passage was altered, on my representations, so as to read "two-thirds of a course," thus bringing it into harmony with the three-period system. Dean Gordon Laing kindly wrote to me signifying that the change had been adopted by the Faculty.

Miss Jean T. Henderson, B.Sc., was appointed Lecturer in Zoology. She has completed her report on the wood-boring crustacean, Limnoria lignorum, and has submitted it to the Biological Board for publication.

The Philip Carpenter Fellowship was awarded to (Mrs.) Kathleen F. Pinhey M.Sc., who has been studying the marine plankton or floating organisms which form the basic food-supply of fishes and whose distribution affords an index to the currents prevailing off the coast. The material under examination is from the Straits of Belle Isle and it is to be followed round the coast of Newfoundland. Mrs. Pinhey was new to this investigation and had to be inducted into it but is rapidly getting the upper-hand of it. The end of the work is not yet in sight and I have applied for a renewal of the Fellowship in her favour. As the Fellowship does not provide for summer work and as it is essential to keep going without losing one's grip upon it, I have also urged the payment of a summer bonus of $300.000 to Mrs. Pinhey. A preliminary abstract of a portion of her research has been sent to the local secretary of the British Association (Section D) at Toronto and has been duly listed in the agenda.

A graduate class in Ecology was held for Miss Jennie Laura Symons, M.Sc., Demonstrator in the Department of Botany, and was attended by a few others on my invitation. This is the first time such a course has been given at McGill.

Three volumes of a bibliographical publication entitled "Dean's Bibliography of Fishes" were received and reviewed by request in the Canadian Field-Naturalist for April, 1924, (copy herewith). The following appreciation was sent by the Editor, Dr. E. W. Gudger, of the American Museum of Natural History, New York. "Please accept my hearty thanks for the very generous review of the Bibliography which you have published and for your kindness in sending copies to me. Dr. Dean is in Europe or he would write you himself, for I am sure he will be very greatly pleased, as is President Osborn."

Gifts to the department not previously registered include the following:—

From Professor J. Graham Kerr, F.R.S., Glasgow University: An embryo of a Nile-fish, Gymnarchus niloticus; a larval Polypterus (a ganoid fish) from West Africa; a larval Lepidosiren (lung-fish) from South America. From Professor Philip Cox, University of New Brunswick: Three small mammals from coniferous woods at St. Andrews, N.B., namely, one red-backed mouse, one shrew-mole, and one star-nosed mole.

May 16th, 1924. ARTHUR WILLEY.

McGILL CONTINGENT

CANADIAN OFFICERS' TRAINING CORPS

Gentlemen,—I beg to lay before you the following report of this Unit for the season ended 31st March, 1924.

Strength.—The strength of the Unit is now as follows:—

			With the Unit
Officers (including M. O.)		19	
On leave		3	16
Other ranks:			
Total enlistment for Session		149	
Officers promoted from ranks	5		
Discharges for various reasons	25	30	119
			135

Major D. H. Macfarlane, M.C., has been on leave throughout the Session, and Major W. V. Howard and Captain J. S. G. Shotwell throughout the second-half.

Parades, Drill Halls, etc.—The following parades have been held:—

Parade	No. of Parades	Average attendances Officers	Other Ranks	Total
Evening (two hours)	20	11	65	76
Evening (recruits one hour)	18	3	16	19
Week-end excursions:				
Infantry	2	4	49	53
Cavalry	4	3	18	21

The Recruits' Drills were held in the Old Law Building, which has proved a great convenience to the Unit in this and other ways.

The Week-end Excursions were held as follows:—

Infantry: The Boys' Farm, Shawbridge; Macdonald College, Ste. Anne de Bellevue.

Cavalry: All to the Royal School of Cavalry, St. John's, P.Q.

The two-hour evening parades were held in Craig Street Armoury, the use of which has been of great benefit to the Corps, despite the long distance that many of the men had to travel in order to get there.

May I again point out how much the training of this Unit is hampered through lack of proper drill accommodation. Our most convenient night was Monday, and to have changed it mid-way through the Session would have upset the work-programmes of many students. Monday, also, is the most convenient night for the Artillery. The result was that, for about forty minutes of the last eight parade nights of the Session, the Artillery had a 60 pdr. intermittently shooting-gallery ammunition down the

centre of Craig Street Armoury for its full length. We accordingly found ourselves not only limited to one-half of the parade-ground space, but, further, to a narrow belt along the walls on either side of that half. I did my utmost to get drill accommodation elsewhere, and was much helped by H.Q., M.D. No. 4, but was unsuccessful. The Artillery could not stop without spoiling their schemes of training, and for the encouragement of recruiting.

Despite this, we are much indebted to the officer in charge of this Armoury for its use.

Musketry.—The following have been classified as First and Second Class Shots:—

	All Ranks
1st Class	21
2nd Class	84
	105

Shooting has been carried on in the following ranges:—Craig Street Armoury, service rifle; Machine Gunners Armoury, service rifle; Grenadier Guards' Armoury, service rifle; Royal Highlanders' Armoury, service rifle; High School, peep-sight for Lewis Gun training.

If we had a range of our own, so that cadets would always meet for instruction and firing at the one place, we could improve our standard of musketry considerably.

The highest score in the final shoot for the Reserve Officers' Cup, awarded to the efficient soldier who is the best shot with the Service Rifle, was made by Lieut. and Q.M., W. H. Bragg, with 95 out of a possible 100. He, however, having won the cup once already within the previous three years, gives place to Captain and Adjutant F. S. Lawrence, with a score of 94.

Challenge Cups.—Two challenge cups, presented during previous years to be won annually by the most efficient platoon and company, are in the University Library in the care of the Librarian. These will be competed for in subsequent Sessions.

Lectures.—A course of 20 Lectures was given for the benefit of "A" and "B" candidates. These lectures were given by the following officers:—Col. K. Cameron, C.M.G,. Lt.-Col. R. O. Alexander, D.S.O., Lt.-Col. E. W. Pope, C.M.G., Major W Neilson, D.S.O., Major N. Salmon, M.C., and officers of this Unit.

In addition to the above, special lectures were given for the Cavalry candidates by Captain LeBlanc, at the Craig Street Armoury, and various officers of the Royal Canadian Dragoons at St. John's.

Special lectures were also given for the Medical Corps candidates by Major H. Pavey, D.S.O.

This Unit is much indebted to all the above officers for these lectures.

C.O.T.C. Examinations.—In my last report to you, dated 2nd April, 1923, I could only give figures for those who had passed the practical portions of their examinations. The final results have been published, and are as follows.—

	Passed.
Captain (B., C.O.T.C.) Infantry	3
Lieutenant (A., C.O.T.C.) Infantry	14
	17

The following Certificates were also obtained by cadets, after obtaining practical training at special camp schools, etc.:—

Captain (B., C.O.T.C.) Cavalry	1
Lieutenant (A., C.O.T.C.) Cavalry	1
Lieutenant (Royal School of Cavalry) Cavalry	1
	3

The following candidates passed both practical portions of the examinations held last February:—

	Cavalry	C.A.M.C.	Infantry	Total
Captains (B., C.O.T.C.)			5	5
Lieutenants (A., C.O.T.C.) .	5	10	9	24
	5	10	14	29

These have sat for their written examinations, the results of which have not been announced yet.

Two officers of this Unit were attending courses at the Royal School of Cavalry with a view to their entering the Permanent Forces, and had created very favourable impressions. The cutting down of the money voted for Militia purposes has, however, closed all possible openings, and they have been compelled to give up their courses through no fault of their own.

Flying.—Cadet W. O. Stevens attended his First Year's Course at Camp Borden, and was very favourably reported on, obtaining an average of 79.24% in his marks. He did not pass in the practical portion of his Infantry "A" (Lieutenant's) examination, but, in view of his good record, has been allowed to continue with his flying course, on the understanding that he passes this examination during next Session.

Cadet T. W. Kerr has been accepted for the Flying Course, and will attend his first camp this summer.

Cavalry, Artillery and Medical Corps.—This Unit received permission in January of this year to train for these branches of the service.

Training for Cavalry and Medical Corps has been commenced, but it has not been possible during this Session to commence Artillery training, owing to the lack of men who wished to take it.

Major H. Pavey, D.S.O., C.A.M.C., has been of great assistance by taking charge of the Medical Training.

Cavalry and Artillery Summer Camps.—The arrangements made last year, whereby cadets could obtain training with Artillery and Cavalry units by being attached to them for summer training, have not been possible this year, because of the cutting down of camps consequent on the reduction in the Militia vote.

Headquarters Staff.—Major Stuart Forbes M.C., Athletic Manager of the University, has joined the Headquarters Staff of this Unit, as Second-in-Command.

It is confidently expected that Mr. J. W. Jeakins, Assistant Registrar of the University, will take up the duties of Adjutant of this Unit before next Session.

The addition to this Unit's Headquarters Staff of these two experienced officers, who are also on the staff of the University, will be of great value, and will largely obviate the frequent changes which have hindered the running of the Unit during this Session.

The Orderly Room is in the Old Law Building, which is proving of great utility to the Unit.

Q. M. Department.—The Stores are in the Old Law Building. Rifles for shooting, and for Recruit Drills are kept there during the training season.

The bulk of the rifles, etc., are kept in Craig Street Armoury during the training season. During the summer, the whole are kept in this Armoury.

This Unit is much indebted to the Officer in Charge of Craig Street Armoury for the use of our store-room there.

Return of Clothing and Equipment by Men.—Much trouble was caused at the close of last Session by a few men in various Faculties delaying in the return of their clothing and equipment.

The Deans of the Faculties were requested to help and did so very effectively.

At the close of this Session similar trouble on a smaller scale was impending. However, on a circular note being sent warning these men that they would be reported to their Deans, the clothing and equipment came in promptly without further trouble. I expect that the trouble will be reduced to a minimum at the close of the next Session.

I have the honour to be, gentlemen,

Your obedient servant,

R. R. Thompson,
Lieut.-Col., O.C., McGill Contingent, C.O.T.C.

FINANCIAL STATEMENTS

1923-1924

INDEX

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING.

ROYAL VICTORIA COLLEGE.

MACDONALD COLLEGE.

ROYAL INSTITUTION FOR THE

COMPARATIVE BALANCE SHEET,

ASSETS

	May 31st, 1924	May 31st, 1923
CURRENT ASSETS:		
Cash in Bank	$ 9,812.87	.....
Accounts Receivable	93,210.09	87,621.80
Merchandise and Supplies	100,793.24	107,461.10
Interest due	37,408.89	29,648.1[illegible]
	$ 241,225.09	$ 224,730.96
INVESTMENTS (Schedule A):		
General	$14,157,650.18	$14,236,597.73
Macdonald College	2,567,277.46	$2,573,603.32
	$16,724,927.64	$16,810,201.05
GROUNDS, BUILDINGS AND EQUIPMENT (Schedule B)	9,884,768.14	9,610,843.31
Construction in Process (Schedule C)	565,851.05	238,409.94
	$10,450,619.19	$ 9,849,253.25
DEFERRED CHARGES	10,708.91	9,045.88
LOSS AND GAIN:		
McGill University	28,153.81	47,382.81
Macdonald College	77,955.36	83,903.16
	$ 106,109.17	$ 131,285.97
ADVANCES TO ENDOWED DEPARTMENTS	26,994.85	16,642.78
	$27,560,584.85	$27,041,159.89

MONTREAL, 2nd August, 1924.

Audited and verified subject to our Report of this date.

MACINTOSH, COLE & ROBERTSON,
Chartered Accountants.

ADVANCEMENT OF LEARNING

SHEET MAY 31st, 1924

LIABILITIES

	May 31st, 1924	May 31st, 1923
CURRENT LIABILITIES:		
Caution Money and Other Deposits	$ 7,667.74	$ 7,977.79
Student Council, Societies and Others	21,744.82	3,853.63
Accounts Payable	39,241.06	30,279.23
Bank Overdraft	.....	93,089.57
	$ 68,653.62	$ 135,200.22
ENDOWMENTS AND DONATIONS (Schedule D)	27,206,814.43	26,618,068.50
FUNDED REVENUE (Schedule E)	98,999.38	83,392.60
RESERVES:		
General Depreciation Reserve—Power House	83,817.45	76,142.15
Investment Depreciation Reserve	56,897.24	53,686.78
Royal Victoria College Reserve	.....	37,963.46
	$ 140,714.69	$ 167,792.39
LIABILITY INSURANCE FUND	7,993.84	7,058.12
DEFERRED CREDITS:		
Interest Unallocated	37,408.89	29,648.06
	$27,560,584.85	$27,041,159.89

CERTIFIED CORRECT:

A. P. S. GLASSCO,
Bursar.

S. R. BURRELL,
Asst. Bursar.

July 30, 1924.

SCHEDULE A

INVESTMENTS, MAY 31, 1924

		Revenue	Capital
MORTGAGES:			
Yielding	4.50%	$ 594.72	$ 13,216.13
"	5.00%	126.25	2,525.00
"	6.00%	33,826.54	563,775.67
"	6.50%	40,885.78	629,012.00
"	7.00%	75,276.34	1,075,373.24
"	7.50%	8,737.50	116,500.00
		$ 159,447.13	$ 2,400,402.04
Average Rate	6.64%.		
BONDS:			
Average Rate	5.74%	741,492.48	12,925,632.75
STOCKS:			
Average Rate	6.85%	92,041.05	1,344,607.84
PROPERTIES	6.24%	3,385.02	54,285.01
Total Average Rate	5.96%	$ 996,375.68	$16,724,927.64

SCHEDULE B

GROUNDS, BUILDINGS AND EQUIPMENT:

Macdonald Engineering Building	$ 468,473.13
Macdonald Engineering Equipment	242,245.66
Thos. Workman Mechanical Workshops	88,206.51
Thos. Workman Mechanical Workshops Fireproofing	67,034.14
Thos. Workman Mechanical Workshops Equipment	23,079.28
Macdonald Physics Building	146,551.97
Macdonald Physics Building Equipment	111,412.06
Macdonald Chemistry & Mining Building	185,410.44
Macdonald Chemistry and Mining Building Equipment	115,734.84
Main Building	99,722.03
Arts Fixtures and Furniture	10,362.54
Natural Science Apparatus	10,657.05
Philosophical Apparatus	1,568.58
Law Fixtures and Furniture	816.48
Medical Building	785,040.58
Biological Building	577,989.61
Biological Building Equipment	139,509.32
Botanical Greenhouses	33,410.03
Botanical Greenhouses Equipment	181.16
Faculty of Music Building and Site	195,000.00
Macdonald College Buildings and Equipment and Grounds	3,352,217.19
Peter Redpath Museum Building	100'000.00
Museum Collections	58,347.98
University Library Building	320,739.50
University Library Building Equipment	3,708.37
Observatory Building	4,228.39
Macdonald Observatory Property	70,405.12
Transit Houses	465.50
Faculty Club Property	49,250.00
Faculty Club Equipment	5,750.00
McGill Union Building and Site	234,454.93
Light, Heat and Power Station	215,223.90
University Street Property No. 746	18,948.65
Porters Lodge	2,125.00
Library Books Account—General	359,146.90
Medical Library Books Account	50,774.18
College Grounds	1,602,453.61
Percival Molson Memorial Stadium	134,123.51
	$ 9,884,768.14

SCHEDULE C

CONSTRUCTION IN PROGRESS, Ledger Balances as at May 31st, 1924.

University Gymnasium Building	$ 39,769.72
Arts Building	964.51
Light, Heat and Power Building Extension	26,443.72
New Animal House Building	1.00
New Engineering Building	18,556.73
Pathological Building	402,607.18
Pathological Building Equipment	48,109.39
Dental Clinic Building and Equipment at Montreal General Hospital	27,382.98
Poultry Houses and Extension, Macdonald College	2,015.82
	$ 565,851.05

SCHEDULE D

ENDOWMENTS AND DOMINATIONS, ETC

ORIGINAL ENDOWMENT AND BEQUEST IN LAND

Hon. James McGill		$ 427,178.04

DONATIONS OF LANDS, BUILDINGS, APPARATUS, ETC.

Macdonald Engineering Building and Equipment Donation	$ 460,396.89	
Thomas Workman Donation for Workshops and Equipment	57,137.31	
Macdonald Donation towards Erection of Workman Workshops	20,000.00	
Donations to Equipment of Workman Mechanical Workshops	13,150.04	
Macdonald Physics Building and Equipment Donation	248,662.57	
Donations for Macdonald Physics Building Equipment	3,692.59	
Macdonald Donation of Chemistry and Mining Building and Equipment	279,321.84	
Donations for Equipment of Macdonald Chemistry and Mining Building	2,000.00	
William Molson Donation of Halls and Corridors	27,500.00	
Donations for Fixtures and Furniture	4,900.00	
Donations for Natural Science Apparatus	6,224.17	
Donations for Faculty of Law Equipment	305.98	
Lord Strathcona Donation of New Medical Building and Site	620,000.00	
J. H. R. Molson's Donation for Extension of Medical College Buildings	62,153.86	
Donations for Faculty of Medicine Equipment	6,214.28	
Lady Strathcona Donation to Medical Faculty	52,346.00	
Hon. Mrs. R. J. B. Howard's Donation to Medical Faculty	52,346.00	
Royal Victoria Hospital Donation towards Construction of Pathological Building	86,989.00	
Lady Strathcona Donation for Faculty of Music Property	195,000.00	
Macdonald Donation for Macdonald College	3,198,355.88	
Redpath Museum Building Donation	100,000.00	
Donations for Museum Collections	$ 46,647.61	
Henry H. Lyman Entomological Bequest of Collection	5,000.00	
Peter Redpath Library Building Donation	187,002.24	
Macdonald Donation of Observatory Property	70,405.12	
Donations for Dormitories	5,920.00	
Dr. James Douglas Donation for Dormitories	200,000.00	
Faculty Club Donation	15,000.00	
Macdonald McGill Union Donation	219,119.00	
Andrew Carnegia Donation	100,000.00	
Donations for Lodge Building	1,950.00	
Macdonald Donation of Dawson University Street Lot	8,737.86	
Macdonald Donation of Lots above Medical College	7,375.33	
Macdonald Donation of Jesse Joseph Property	142,500.00	
Lord Strathcona Donation for Carlton Road Lots	5,250.00	
J. H. R. Molson Donation of McTavish Street Property for Library Site	42,500.00	
Macdonald Donation of Macdonald Park	1,117,639.50	
Percival Molson Bequest	75,000.00	
Donations for Percival Molson Memorial Stadium	59,123.51	
Donations for Library Books	100,125.98	
		$ 7,905,992.56

SCHEDULE D.—(Continued)

CHAIR ENDOWMENTS:		
S. H. Ewing and Heirs Demonstratorship in Mechanical Engineering	10,000.00	
Macdonald Chair of Architecture	50,000.00	
Macdonald Chair of Electrical Engineering	60,000.00	
William Scott Chair of Civil Engineering	30,000.00	
Thos. Workman Chair of Mechanical Engineering and Maintenance of the Mechanical Workshops	59,862.69	
Macdonald Chairs of Physics	120,000.00	
Macdonald Chairs of Chemistry	110,000.00	
Henry Birks Chair of Metallurgy	75,000.00	
Macdonald Chair of Mining	60,000.00	
R. B. Angus Associate Chair of Economics and Political Science and Departmental Endowment	50,000.00	
Dawson Chair of Geology, founded by Sir W. C. Macdonald	50,000.00	
William Dow Chair for Political Economy	75,000.00	
John Frothingham Chair of Mental and Moral Philosophy	40,000.00	
David J. Greenshields Associate Chair of English Literature	40,000.00	
Dr. B. J. Harrington Lectureship in Minerology	6,550.00	
Dr. William Kingsford Chair of History, founded by Sir. W. C. Macdonald	50,000.00	
Logan Chair of Geology	20,000.00	
Macdonald Chair of Botany	50,000.00	
Macdonald Chair of Education	60,000.00	
Macdonald Chair of Moral Philosophy	50,000.00	
Hiram Mills Chair of Classics	43,070.32	
Molson Chair of English Language and Literature	40,000.00	
Peter Redpath Chair of Pure Mathematics	20,000.00	
Philip S. Ross Demonstratorship	20,900.00	
Strathcona Chair of Zoology (part)	24,000.00	
Sun Life Assurance Junior Lectureship in Mathematics (Part)	20,000.00	
Gale Chair in Law	25,000.00	
Dr. Jos. M. Drake Chair of Physiology	25,000.00	
Dr. James Douglas Lectureship in Pathology	25,000.00	
Robert Reford Chair of Anatomy and Departmental Endowment	100,000.00	
John Frothingham Principal Fund	40,000.00	
		1,449,383.01
MISCELLANEOUS ENDOWMENTS:		
General Endowments, 1856 and 1871	55,770.00	
General Endowment Fund, 1881	32,700.00	
General University Fund	47,757.05	
General Campaign Endowment Fund, 1911	1,116,501.18	
Centennial Endowment Fund, 1920	4,383,864.82	
Carnegie Corporation Endowment	1,000,000.00	
G. B. Cramp Bequest	51,780.00	
Miss Mary A. Cramp Request	25,000.00	
Samuel Greenshields Bequest	5,000.00	
Edwin H. King Endowment	50,000.00	
McGill University College of British Columbia Fund	2,000.00	
J. H. R. Molson Fund	100,000.00	
Mrs. J. H. R. Molson Fund	103,250.00	
Heirs John Thomas Molson Endowment	50,000.00	
Robert Reford Endowment for Salaries	50,000.00	
James Ross Bequest	162,148.56	
Aldana R. Spencer Legacy	3,000.00	
Lord Strathcona Endowment for Salaries	50,000.00	
Anne W. Tedford Bequest	4,500.00	
Mary Teskey Legacy	13,193.45	
Hon. F. W. Torrance Bequest	41,290.00	
W. Vaughan Endowment	33,000.00	
Faculty of Applied Science Fund	6,100.00	
Macdonald Endowment for Maintenance of Architectural Department	10,000.00	
Graduates Endowment Fund—Faculty of Applied Science	105.00	
Macdonald Chemical Department Endowment	135,000.00	
Macdonald Mining and Metallurgical Department Fund	55,000.00	
Faculty of Arts Fund	4,300.00	
Andrew F. Gault Endowment	9,000.00	
Chas. Gibb Botanical Fund	30,800.00	
Forward	$14,528,471.80	$ 9,782,553.61

SCHEDULE D—(Continued)

Forward	$14,528,471.80	$ 9,782,553.61
MISCELLANEOUS ENDOWMENTS—(Continued)		
Faculty of Law Fund	122,209.00	
Macdonald Law Faculty Fund	232,500.00	
Campbell Memorial Fund	48,906.04	
Dr. R. Craik Fund	4,000.00	
Mrs. Mary Dow Bequest to Medical Faculty	9,000.00	
Leanchoil Fund	50,000.00	
A. E. Holden Legacy for the Department of Pharmacy	500.00	
The Eddie Morrice Laboratory of Pharmacology Endowment	14,000.00	
Macdonald Endowment for Medicine	500,000.00	
Rockefeller Foundation Endowment for Medicine	1,027,500.00	
Dr. George Ross Endowment	10,000.00	
Lord Strathcona Endowment of Department of Pathology and Hygiene	100,000.00	
Dr. R. Palmer Howard Memorial Fund for Music	5,000.00	
Macdonald Endowment for Faculty of Music	300,000.00	
Faculty of Music Fund	1,400.00	
R. J. Wicksteed Bequest	70,000.00	
Macdonald Endowment for Macdonald College	4,023,896.70	
Redpath Museum Fund	30,000.00	
Redpath Library Fund	120,000.00	
British Association Apparatus Fund	1,500.00	
Macdonald Endowment for Maintenance of Chemistry and Mining Building	225,000.00	
William Molson Museum Fund	2,000.00	
Macdonald Endowment for Maintenance of Engineering Building	$ 85,000.00	
Macdonald Endowment for Maintenance of Physics Building	150,000.00	
McGill Union Graduates Endowment	16,432.56	
Buildings and Equipment Account—Faculty of Medicine	228,196.42	
		15,008,100.78
CAPITALIZED REVENUE:		
Engineering Building	$ 240,926.39	
Engineering Building Equipment	9,185.34	
Physics Building Equipment	3,168.93	
Chemistry and Mining Building Equipment	18,153.74	
Natural Science Apparatus	1,881.33	
Faculty of Law Equipment	510.50	
Faculty of Medicine Buildings	60,649.87	
Biological Building	12,265.14	
Macdonald College Buildings	153,861.31	
Museum Collections	317.79	
Library Books	237,096.45	
Medical Library Books	50,774.18	
Construction of Dormitories	118,966.47	
McGill Union Building and Equipment	15,335.93	
		923,093.37
FUNDS HELD FOR SPECIAL PURPOSES (Funded Revenue Ledger):		
See Schedule "E"		1,493,066.67
		$27,206,814.43

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

(FUNDED REVENUE ACCOUNTS) 31st May, 1924

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st 1923	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1924
PRIZES								
Anglin-Norcross Prizes	1912		Dr. $ 50.00	$50.00				
Building Construction, Prize for	1923			25.00	25.00			$ 25.00
Canadian Manufacturers Association Prize	1913			800.00	800.00	800.00		
Chapman, Henry, Prize	1919	470.00	18.56	23.92	42.48	15.00	26.00	1.48
Coster Memorial Prize	1901			25.00	25.00	25.00		
Crosby Steam Gauge and Valve Co.'s Prize	1900		Dr. 50.00	51.50	1.50			1.50
Dawson, Sir William, Bursary	1901		369.21	61.50	430.71	120.00		310.71
Drake, Dr. J. M., Prize	1902	1,080.00	9.62	64.58	74.20			74.20
Export Trade Prize in Commerce	1923		55.00		55.00	55.00		
Hils, Dr. Joseph, Prize	1907	783.00	1.87	46.35	48.22	40.00	8.00	.22
Junior Bar Association Prize	1911		Dr. 15.00	15.00				
Macnaghten, Chester, Prize for Reading	1913	900.00	Dr. .65	51.45	50.80		50.00	.80
McCarthy, J. M., Prizes	1897		Dr. 4.00	20.00	16.00			16.00
McIntosh, Annie, Prize	1900	1,145.00	68.31	68.45	136.76	70.00		66.76
Martin, Dr. Charles F., Lawn Tennis Prize Fund	1923	755.00		48.32	48.32	40.00		8.32
Montreal Bar Prize	1918			50.00	50.00			50.00
Montreal Light, Heat and Power Consolidated Prize in Electrical Engineering	1924			200.00	200.00			200.00
Penhallow Prize in Botany	1910	1,233.00	4.93	73.73	78.66			78.66
Physical Education Prize	1923		30.00		30.00	25.00		5.00
Reford, Mrs. R. Wilson, Fund for Departments of English and Philosophy	1920	5,000.00	309.00	299.00	608.00	300.00		308.00
Reid, Miss Helen R. Y., Prizes	1920		10.00	20.00	30.00	10.00		20.00
Robertson, Louis, Prize	1916	200.00	11.59	11.96	23.55			23.55

Social Workers, School of, Prize Fund	1923			45.00	45.00			45.00
Stewart, Neil, Prize	1878	585.00		17.77	32.89	50.66	15.00	35.00	.66
Tighe, James, Prize	1900			50.00		50.00			50.00
Wilson, J. C., Prize	1900	1,320.00		76.05	78.94	154.99	80.00		74.99
MEDALS									
British Association Exhibition and Gold Medal	1884	2,605.00			155.78	155.78	155.78		
Chapman, Henry, Gold Medal	1856	700.00		2.44	41.86	44.30		44.00	.30
Logan Gold Medal	1864	2,765.00		10.36	158.47	168.83	53.61	115.00	.22
Molson, Anne, Gold Medal	1864	3,440.00	Dr.	.80	200.33	199.53	107.18	90.00	2.35
Oliver, Allen, Gold Medal	1918	1,688.64		22.64	100.99	123.63	130.69		Dr. 7.06
Prince of Wales Gold Medal	1860	2,740.00	Dr.	.84	154.88	154.04		150.00	4.04
Shakspere Gold Medal	1864	2,560.00		18.08	143.52	161.60		160.00	1.60
Sutherland Gold Medal	1879	1,520.00		1.90	88.21	90.11	44.89	45.00	.22
Torrance, Elizabeth, Gold Medal	1867	1,250.00		2.26	73.55	75.81	53.61	20.00	2.20
Wicksteed, R. J., Medals	1913	200.00	Dr.	2.95	11.96	9.01	16.45		Dr. 7.44
Wood, Dr. Casey A., Medal	1905	1,000.00		114.66	50.00	164.66	55.00		109.66
SCHOLARSHIPS									
Alexander, Charles, Scholarship Fund	1870	2,000.00		554.00	119.60	673.60	150.00		523.60
Babcock & Wilcox Exhibition	1912		Dr.	200.00	400.00	200.00	200.00		
Barclay, Dr. James, Scholarship Fund	1915	1,000.00		137.50	50.00	187.50	50.00		137.50
Baylis Scholarship Fund	1911	2,000.00	Dr.	9.60	119.60	110.00	100.00		10.00
Bedford District of McGill Graduates' Society Scholarship Fund	1911	2,860.00		2.16	161.46	163.62		160.00	3.62
Berliner, Edgar M., Bursary	1919			260.00	128.00	388.00	264.00		124.00
Bruce, Robert, Bursaries	1923				236.77	236.77	200.00		36.77
Cooper, James, Scholarship Fund	1921				1,000.00	1,000.00			1,000.00
Delta Upsilon Memorial Scholarship Fund	1919	15,099.72		1,203.43	842.96	2,046.39	595.00		1,451.39
Dental Scholarship Fund	1922	227.04			12.81	12.81		12.81	
Drummond, Guy M., Scholarship	1915	30,210.00		6.61	1,704.30	1,710.91		1,710.00	.91
Farrand, Narcissa Scholarship Fund	1914	9,000.00		25.36	517.27	542.63	177.30	350.00	15.33
Hoare, Walter, Memorial Scholarship in Medicine	1920	7,025.00		30.65	394.68	425.33		425.00	.33
Hodgson, Sidney J., Memorial Exhibitions Fund	1919	8,325.00		30.98	455.85	486.83	425.00	60.00	1.83
Hooper, Angus W., Scholarship	1922				100.00	100.00	100.00		
Houston Scholarship	1915	1,000.00		138.91	59.80	198.71			198.71
Hunt, Dr. T. Sterry, Scholarship Fund	1894	15,081.29			1,022.26	1,022.26	900.00		122.26
Forward		$33,939.64		$1,080.01	$3,342.14	$4,422.15	$2,212.21	$ 743.00	$1,466.94

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

(FUNDED REVENUE ACCOUNTS) 31ST MAY, 1924

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st 1923	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1924
Forward		$33,939.64	$1,080.01	$3,342.14	$4,422.15	$2,212.21	$ 743.00	$1,466.94
SCHOLARSHIPS—(Cont'd)								
Jones, Hon. Robert, Scholarship Fund	1910	6,000.00	885.37	358.80	1,244.17	375.00		869.17
Khaki University and Y.M.C.A. Memorial Scholarship Fund	1921		Dr. 18,640.33	6,995.11	Dr. 11,645.22	9,400.90		Dr. 21,046.12
Lindsay, C. W., Scholarship	1909			175.00	175.00	175.00		
Lyman, Hannah W., Memorial Fund	1872	1,630.00	5.90	96.28	102.18	80.00	20.00	2.18
Massey, Rev. Samuel Exhibition	1909		250.00		250.00			250.00
Mills, Hiram, Gold Medal Scholarship	1882	2,100.00	35.16	166.69	201.85	187.79		14.06
Morris, Alexander, Exhibition Fund	1907	1,000.00	209.09	59.80	268.89	60.00		208.89
Moyse, Dr. Chas. E., Travelling Scholarship	1920	40,000.00		4,254.36	4,254.36			4,254.36
Music, Faculty of, Scholarships and Exhibitions	1904		546.86		546.86	200.00		546.86
McCall, James Darling Scholarship	1920	5,000.00	634.00	299.00	933.00	275.00		658.00
Macdonald Memorial Scholarship in Music	1922	6,000.00	1.66	358.80	360.46	350.00		10.46
Macdonald College Agricultural Alumni Association Memorial Scholarship	1920	3,782.92	115.86	192.75	308.61	100.00		208.61
Macdonald Scholarship Fund	1871	25,000.00	8,337.00	1,864.65	10,201.65	1,800.00		8,401.56
Macdonald Travelling Scholarship in Law	1902	20,000.00	3,112.61	1,196.00	4,308.61	1,200.00		3,108.61
Mackenzie, Alexander, Memorial Fund	1902	17,985.00	6.03	1,031.55	1,037.58	300.00	735.00	2.58

MacRae Scholarship, The	1924	3,066.25		129.89	129.89	100.00		29.89
Macrae, John, Scholarship	1920	10,500.00	Dr. 81.10	627.90	546.80	600.00	Dr.	53.20
Oliver, Allen, Scholarship Fund	1918	10,000.00	Dr. 32.00	598.00	566.00			566.00
Peterson, Sir William, Memorial Scholarship Fund	1921	6,055.42	Dr. 7.95	362.10	354.15	350.00		4.15
Prince Edward Island Scholarship Fund	1911		68.43	1.70	70.13			70.13
Redpath, Jane, Exhibition Fund	1868	2,150.00	Dr. 6.68	128.58	121.90	115.00		6.90
Robb, Janet Morison, Bursary—Macdonald College	1920	2,000.00	118.60	119.60	238.20	240.00	Dr.	1.80
Ross, P. S., Exhibition	1911			100.00	100.00	100.00		
Rowat, Lieut. Thomas Alexander, Memorial Scholarship Fund	1920	1,000.00	121.80	59.80	181.60	120.00		61.60
Scott, Barbara, Scholarship Fund	1880	2,000.00	570.06	119.60	689.66	110.00		579.66
Scott, Walter, Exhibition Fund	1872	1,100.00	148.42	65.78	214.20	50.00		164.20
Snyder, Charles M., Memorial Scholarship	1921	5,000.00		250.00	250.00	250.00		
Trafalgar Scholarship Fund	1913	2,450.00	12.18	146.51	158.69	135.00		23.69
Westmount School Commissioners Exhibitions	1916			300.00	300.00	300.00		
Women's Art Society, Exhibition in Music	1916		Dr. 50.00	50.00				
FELLOWSHIPS								
Ami, Dr. H. M., Fellowship in Geology	1923			300.00	300.00	262.50		37.50
Browne, Dr. A. A., Memorial Fund	1911	10,000.00	7,745.77	1,061.20	8,806.97	1,000.00		7,806.97
Carpenter, Philip P., Fellowship Fund	1892	20,000.00	10.90	1,196.00	1,206.90	1,200.01		6.89
Dawson, Sir William, Fellowship Fund	1899	11,123.00	3,409.17	750.38	4,159.55	750.00		3,409.55
Douglas, Dr. James, Research Fellowship in Mining	1914	10,000.00	2,428.97	743.25	3,172.22	750.00		2,422.22
Douglas, Dr. James, Research Fellowship in Pathology	1911	25,000.00	3,615.57	1,567.32	5,182.89	2,524.69		2,658.20
Douglas, Dr. James, studentship in Pathology	1914		1,944.87	97.25	2,042.12			2,042.12
Douglas, Dr. James, Tutorship in Faculty of Applied Science	1911	25,000.00	1,350.25	1,495.00	2,845.25	1,699.32		1,145.93
Flinn, John W., Research Fellowship in Tuberculosis	1921		500.00	1,008.34	1,508.34	500.00		1,008.34
Harrington, Dr. B. J., Research Fellowship in Mining	1920	3,480.00	Dr. 101.81	190.16	88.35			88.35
Leroy Memorial Fellowship in Geology	1921	11,560.00	554.26	727.01	1,281.27	925.00		356.27
Metallurgical Research Fellowship	1920	325.00		640.00	640.00	640.00		
Forward		$418,075.28	$21,078.93	$41,051.66	$62,130.59	$33,253.32	$4,215.81	$24,661.46

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

(FUNDED REVENUE ACCOUNTS) 31ST MAY, 1924

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st 1923	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1924
Forward	.....	$418,075.28	$21,078.93	$41,051.66	$62,130.59	$33,253.32	$4,215.81	$24,661.46
FELLOWSHIPS—(Cont'd)								
McArthur, Irwin Co., Research Fellowship	1923	.....	.....	500.00	500.00	654.60	.....	Dr. 154.60
Montreal Manufacturers Graduate Fellowship in Economics	1923	.....	3,396.09	181.76	3,577.85	800.00	.....	2,777.85
Weedon Mining Co.'s Research Fellowship in Metallurgy	1916	.....	187.39	.....	187.39	187.39	.....	.....
LIBRARY FUNDS								
Applied Science Library Fund	1907	5,250.00	432.95	313.95	746.90	654.68	.....	92.22
Baillie, Lieut George I., Memorial Library Fund in Chemistry	1920	25,000.00	185.08	3,625.00	3,810.08	3,067.46	.....	742.62
Blackader, The Gordon Home Memorial Fund	1917	10,100.00	Dr. 17.79	800.83	783.04	881.80	.....	Dr. 98.76
Blacker Library of Zoology	1921	10,000.00	2,491.46	598.00	3,089.46	2,851.08	.....	238.38
Dawson, Sir William Memorial Library Fund	1897	.....	Dr. 45.84	530.79	484.95	305.98	.....	178.97
Douglas, Dr. James, Library Fund Books	1916	15,000.00	845.70	897.00	1,742.70	1,485.30	.....	257.40
Drummond, William Henry, Memorial Fund	1911	10,000.00	28.48	598.00	626.48	396.83	.....	229.65
Gardner, Dr. William, Book Fund	1915	.....	8.41	.....	8.41	.....	.....	8.41
Gould, C. H., Memorial Book Fund	1920	.....	26.79	.....	26.79	25.93	.....	.86
Hickson, Lady, Library Fund	1920	5,000.00	212.99	299.00	511.99	315.50	.....	196.49
International Catalogue of Scientific Literature	1913	.....	.....	30.89	30.89	30.89	.....	.....

LIBRARY FUNDS—(Cont'd)										
Lane, Dr. J. A., Library Fund in Medicine	1921			.81		.81				.81
Maccabean Circle Book Fund	1914			48.54	87.00	135.54	3.57			131.97
Macdonald Philosophical Book Fund	1904	1,000.00		97.00	74.60	171.60	140.64			30.96
Macphail, J. B., Library Fund	1920			19.23		19.23	19.23			
McLennan, Francis, Book Fund	1910		Dr.	13.46	27.81	14.35	5.97			8.38
McLennan, Hugh S.,Library Fund	1892	250.00		9.53	14.95	24.48	8.69			15.79
Molson, Wm., Library Fund	1871	4,400.00		76.53	263.12	339.65	204.27			135.38
Morgan Library Fund	1920		Dr.	5.46	5.46					
Murray, Dr. J. Clarke, Philosophical Book Fund	1914	1,000.00		53.89	59.80	113.69	115.00		Dr.	1.31
Murray, Dr. D. A., Book Fund	1924				100.00	100.00				100.00
Redpath, Alice E., Book Fund	1913	500.00		2.30	29.90	32.20	42.61		Dr.	10.41
Redpath, John R., Library Fund	1911			46.14	200.00	246.14	232.23			13.91
Redpath, William Wood, Memorial Fund—Library and Faculty of Applied Science	1881	1,000.00		121.80	59.80	181.60	32.23			149.37
Roddick, Sir Thomas and Lady, Library Fund	1920	5,000.00		277.80	499.00	776.80	660.37			116.43
Shepherd, Dr. F. J., Library Endowment Fund in Medicine	1920	500.00		48.64	29.90	78.54	33.20			45.34
Thornton, H. W., Memorial Fund	1908	3,000.00		1.04	179.40	180.44	692.62		Dr.	512.18
Torrance Philosophy Book Fund	1876	1,000.00		38.92	59.80	98.72	106.22		Dr.	7.50
Travelling Libraries (McLennan)	1900	20,000.00	Dr.	186.20	2,172.82	1,986.62	2,449.66		Dr.	463.04
Travelling Library Extension	1922			68.31	200.00	268.31	60.79			207.52
Veterinary Book Fund	1907	423.91		352.84	25.35	378.19	350.00			28.19
Wilson, Mrs. E. Graham, Book Fund	1920			156.02		156.02				156.02
Wood, Dr. Casey A., Medical Library Fund	1912	3,000.00		293.53	150.00	443.53	379.28			64.25
Wood, Dr. Casey A., University Library Fund	1920		Dr.	110.15	256.55	146.40	768.59		Dr.	622.19
MISCELLANEOUS										
Applied Science Loan Fund, Class 1899	1899			11.40	112.00	123.40				123.40
Byers, Dr. and Mrs. W. Gordon, Equipment Fund for Ophthalmic Clinic, Royal Victoria Hospital	1920			213.48		213.48	27.15			186.33
C.A.M.C. War Museum	1923				500.00	500.00	50.00			450.00
Chemistry Department Special Fund	1906	4,925.00		36.30	278.07	314.37		275.00		39.37
Forward		$529,499.19		$30,227.24	$53,422.14	$83,650.38	$50,561.33	$4,215.81		$28,873.24

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

(FUNDED REVENUE ACCOUNTS) 31ST MAY, 1924

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st 1923	Receipts for Year	Total Credits	Disburse-ments for Year	Capitalized	Balance May 31st, 1924
Forward		$529,499.19	$30,228.24	$53,422.14	$83,650.38	$50,561.33	$4,215.81	$28,873.24
Cooper, James, Endowment for Internal Medicine	1912	62,000.00	4,897.70	3,880.88	8,778.58	4,650.00	2,000.00	2,128.50
Cooper James, Fund for Anatomy	1921			500.00	500.00	125.00		375.80
Cooper, James, Fund for Fracture Clinic, Montreal General Hospital	1923			500.00	500.00			500.00
Cooper, James, Fund for Medical Museum	1912		27.92		27.92	28.02		Dr. .10
Cooper, James, Fund for Department of Pathology	1921		528.30		528.30	285.25		243.05
Cooper, James, Fund for Department of Physiology	1921			500.00	500.00	72.59		427.41
Cooper, James, Fund in favour of Dr. Jessie Boyd	1923			500.00	500.00	250.00		250.00
Cooper, James, Fund in favour of Dr. J. F. Burgess	1923			300.00	300.00	150.00		150.00
Cooper, James, Fund in favour of Dr. E. H. Mason	1922		250.00		250.00	250.00		
Cooper, James, Fund in favour of Dr. I. M. Rabinovitch	1922			300.00	300.00	300.00		
Cooper, James, Fund in favour of Dr. G. E. Simpson	1923			50.00	50.00	50.00		
Davidson, Thos., Mfg. Co., donation	1923			50.00	50.00			50.00
Election of Fellows Fund	1880	1,630.00	98.93	97.47	196.40	98.93		97.47
Frost, G. H., Loan Fund	1911		4,791.28	1,114.07	5,905.35	700.00		5,205.35
Graduates' Society of McGill University Endowment	1920	262.48	3.75	12.48	16.23	3.75	12.48	

MISCELLANEOUS—(Cont'd)								
Herdt, Professor L. A., Electrical Equipment Fund	1920	.....	500.00	.....	500.00	.....	.....	500.00
Hersey, Dr. Milton L., Metallurgical Equipment Fund	1910	9,500.00	613.90	568.10	1,182.00	769.49	.....	412.51
International Association of Medical Museums	1913	5,000.00	67.78	401.43	469.21	325.21	.....	144.00
Johnson, Dr. F. G. M., donation	1922	.....	15.46	.....	15.46	.....	.....	15.46
Lyman, Henry H., Entomological Fund	1914	40,000.00	3,380.58	2,594.16	5,974.74	1,962.42	.....	4,012.32
Macdonald Auxiliary Fund	1897	395,250.00	.....	23,635.95	23,635.95	23,635.95	.....	.....
Macdonald Buildings Repair Fund	1900	15,000.00	11,464.56	1,804.26	13,268.82	933.51	.....	12,335.31
Macdonald College, Jos. E. Caron, Investment Account	1906	.....	10,500.00	500.00	11,000.00	500.00	.....	10,500.00
Macdonald Experimental Psychology Fund	1904	5,000.00	907.12	372.88	1,280.00	443.38	.....	836.62
Macmillan, John A., Equipment Fund for Ophthalmological Department of Royal Victoria Hospital	1920	.....	100.00	.....	100.00	.....	.....	100.00
Osler Pathological Collection donation	1920	.....	142.83	.....	142.83	126.85	.....	15.98
Osler, Lady, Donation for the Osler Pathological Collection	1924	.....	.....	100.00	100.00	.....	.....	100.00
Post-Graduate Fund, Faculty of Medicine	1906	.....	987.95	24.70	1,012.65	.....	.....	1,012.65
Soldiers Memorial Fund	1920	.....	5,758.79	344.38	6,103.17	.....	.....	6,103.17
Stewart, Walter M., Equipment Fund	1922	.....	3,536.46	2,083.87	5,620.33	2,067.95	.....	3,552.38
Superannuation Fund	1894	415,000.00	3,715.72	25,039.20	28,754.92	9,122.04	.....	19,632.88
Tooke, Dr. F. T., Equipment Fund for Eye Department, Royal Victoria Hospital	1920	.....	100.00	.....	100.00	.....	.....	100.00
Undergraduates' Gymnasium Fund	1910	.....	514.15	12.85	527.00	.....	.....	527.00
Total	.....	$1,493,066.67	$83,392.60	$119,598.89	$202,991.49	$97,488.82	$6,503.29	$98,999.38

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING
STATEMENT OF INCOME AND EXPENDITURE
For Year Ending May 31st, 1924, with Comparative Figures for Year Ending May 31st, 1923
ACCOUNT, LOSS AND GAIN

INCOME

Faculties and Departments	Interest	Fees	Other income	Total Income Year Ending May 31, 1924	Total Income Year Ending May 31, 1923
Applied Science, Faculty of	$ 39,842.03	$ 89,008.15	$ 1,057.32	$ 129,907.50	$ 161,455.67
Arts, Faculty of	39,717.45	38,324.40	2,052.24	80,094.09	73,903.93
Commerce, Department of	1,013.25	26,926.65	7,000.00	34,939.90	33,910.52
Law, Faculty of	26,151.36	10,103.25	40.50	36,295.11	36,036.57
Medicine, Faculty of	112,930.51	122,688.40	1,127.58	236,746.49	250,071.04
Dentistry, Faculty of	.....	20,648.12	.....	20,648.12	21,847.75
Music, Faculty of	18,318.71	27,120.75	2,002.75	47,442.21	46,665.53
Physical Education—School	.....	8,356.49	.....	8,356.49	7,348.00
University Account	362,460.08	.....	35,000.00	397,460.08	376,024.93
Extension Lectures	1,914.37	11,862.25	100.00	11,962.25	687.00
Redpath Museum	.....	.....	.....	1,914.37	1,915.88
Graduate Nurses School	.....	2,132.50	5,000.00	7,132.50	6,382.00
Observatory	.....	.....	3,065.62	3,065.62	3,076.05
Redpath Library	7,179.07	.....	150.00	7,329.07	7,331.12
Graduate School	.....	2,072.50	.....	2,072.50	1,547.10
Athletic Board	.....	.....	28,979.94	28,979.94	.....
	$ 609,526.83	$ 359,243.46	$ 85,575.95	$1,054,346.24	$1,036,203.09

EXPENDITURE

Faculties and Departments	Salaries	Wages	Other Expenses	Total Expenses Year Ending May 31, 1924	Total Expenses Year Ending May 31, 1923
Applied Science, Faculty of	$ 125,891.70	$ 23,883.10	$ 110,878.20	$ 260,653.00	$ 270,743.86
Arts, Faculty of....$146,102.12 Less Allowance from R.V.C. and Commerce 44,500.00	101,602.12	.....	63,958.35	165,560.47	159,623.91
Law, Faculty of	28,714.39	.....	10,208.10	38,922.49	43,607.64
Medicine, Faculty of	140,849.10	22,306.55	156,345.17	319,500.82	319,855.89
Dentistry, Faculty of	21,441.50	1,213.34	36,143.73	58,798.57	58,747.38
Commerce, Department of	15,391.74	.....	25,061.71	40,453.45	40,013.44
Music, Faculty of	31,626.78	.....	12,914.01	44,540.79	42,572.07
Physical Education—School	7,165.00	.....	5,114.98	12,279.98	10,913.45
McCord National Museum	2,435.00	.....	2,610.25	5,045.25	6,219.25
Graduate Nurses School	5,580.91	.....	3,209.89	8,790.80	8,079.67
Observatory	2,525.04	.....	1,070.97	3,596.01	3,667.52
Redpath Museum	1,200.00	.....	4,224.01	5,424.01	6,993.91
Redpath Library	22,873.58	2,014.83	44,905.30	69,793.71	57,481.20
Extension Lectures	11,458.73	200.05	3,528.42	15,187.20	10,529.36
Graduate School	364.01	.....	1,617.29	1,981.30	991.65
Athletic Board	10,675.86	820.35	26,280.38	37,776.59	.....
	$ 529,795.46	$ 50,438.22	$ 508,070.76	$1,088,304.44	$1,040,040.20
Deficit on Ordinary Maintenance	.....	.....	.....	7,645.06	34,276.08 (Surplus)
Expenditure on Special Appropriations (See schedule J.)	.....	.....	.....	26,313.14	38,113.19
Total Deficit	.....	.....	.....	33,958.20	3,837.11
The expenses of the following departments have been distributed over the other Departments and Faculties and are included in the figures shown on the above Statements:					
University Charges	64,665.88	3,042.31	26,387.94	94,096.13	102,665.85
Light, Heat & Power Station	2,499.96	15,241.05	53,189.48	70,930.49	80,962.52
Physics Department	37,598.18	5,861.54	16,173.10	59,632.82	58,306.28
Chemistry Department	33,419.88	3,971.65	13,184.40	50,575.93	52,666.72
Physical Education Department	16,169.10	2,706.24	4,442.97	23,318.31	25,966.57
Botanical & Biological Dept.	14,113.20	1,016.09	11,172.95	26,302.24	25,934.09
Zoological Department	10,749.99	1,165.00	5,481.46	17,396.45	16,275.23

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

COMPARATIVE STATEMENT OF INCOME AND EXPENDITURE
For Years Ending May 31st, 1924, and May 31st, 1923

FUNDED AND RESTRICTED ACCOUNTS

INCOME

Faculties and Departments	Interest	Other Income	Total Income Year Ending May 31, 1924	Total Income Year Ending May 31, 1923
Macdonald College	$217,312.37	$160.00	$217,472.37	$217,355.18
Income Account, Funded Revenue Ledger	91,457.23	28,141.66	119,598.89	123,226.56
Total Income	$ 308,769.60	$ 28,301.66	$ 337,071.26	$ 340,581.74

EXPENDITURE

Faculties and Departments	Salaries	Other Expenses	Total Expenses Year Ending May 31, 1924	Total Expenses Year Ending May 31, 1923
Macdonald College	.....	$ 209,972.30	$209,972.30	$ 169,806.31
Expenditure Accounts of Funded Revenue Ledger Accounts	.....	103,992.11	*103,992.11	209,491.88
Total Expenditure	.....	$ 313,964.41	$ 313,964.41	$ 379,298.19
Excess Income	.....	.....	23,106.85	.....
Excess Expenditure	.....	.....	.....	38,716.45

*Item of $103,992.11 includes transfers to Capital Account of $6,503.29.

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

RECEIPTS ON CAPITAL ACCOUNT

For Year Ending May 31st, 1924

ENDOWMENTS AND DONATIONS:		
Centennial Endowment Fund (Addl.)		$ 483,013.05
Strathcona Chair of Zoology (part)		24,000.00
Sun Life Assurance Co.'s Junior Lectureship in Mathematics (Addl.)		5,000.00
Samuel Greenshields Bequest		5,000.00
Faculty of Music Endowment (Addl.)		100.00
Mrs. John H. R. Molson Bequest (Addl.)		2,500.00
Philip S. Ross Demonstratorship (Addl.)		1,600.00
Hon. F. W. Torrance Bequest (Addl.)		40.00
Moyse Travelling Scholarships (Addl.)		20,000.00
McRae Scholarship		3,066.25
Dr. J. B. Harrington Research Scholarship (Addl.)		450.00
Macdonald College Agriculture Alumni Association Memorial Scholarship (Addl.)		959.60
Dr. Charles F. Martin Lawn Tennis Prize		755.00
Gordon Home Blackader Fund (Addl.)		500.00
Royal Victoria Hospital Donation for Pathological Building		86,989.00
Lady Strathcona Donation of Faculty of Music Property		195,000.00
Donation towards purchase price of Faculty Club Property		15,000.00
Donations for Percival Molson Stadium		10,663.42
Funded Revenue Ledger—Schedule "H"		6,503.29
Interest on following Funds:		
Dr. Jas. Douglas Donation for Dormitories	$ 11,960.00	
Donations for Dormitories Fund	6,371.96	
Chemistry and Mining Building Equipment	204 84	
		18,536.80
		$ 879,676.41
DEDUCT:		
Lieut. Geo. I. Baillie Memoria lLibrary Fund, amount transferred back to revenue	$ 2,500.00	
Moyse Travelling Scholarship, amount transferred back to revenue	2,510.17	
Transferred to separate Royal Victoria College Account:		
Lord Strathcona Donation, Royal Victoria College	$ 34,000.00	
Lord Strathcona Endowment	120,000.00	
Women's Residence Building Fund	125,000.00	
Capitalized Revenue for Women's Residence Building Fund	52,229.62	
	331,229.62	
		336,239.79
		$ 543,436.62

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

DISBURSEMENTS ON CAPITAL ACCOUNT

For Year Ending May 31st, 1924

BUILDINGS AND EQUIPMENT:

University Library Extension (Addl.)		$ 96.45
Biological Building Equipment (Addl.)		903.56
Chemistry Department Equipment (Addl.)		952.09
Light, Heat & Power Building Extension (Addl.)		6,000.63
New Engineering Building (Addl.)		1,298.68
Pathological Building (Addl.)		276,842.02
Pathological Building Equipment (Addl.)		47,974.78
Percival Molson Memorial Stadium (Addl.)		10,663.42
Music Building and Site, donated by Lady Strathcona		195,000.00
Faculty Club Property		49,250.00
Faculty Club Equipment		5,750.00
		$ 594,731.63

CREDIT:

Dental Building and Equipment—Montreal General Hospital: Repayment from revenue—3rd instalment	$ 4,000.00	
Poultry House and Extension, Macdonald College: Repayment from revenue—2nd instalment	675.00	
Royal Victoria College Property transferred to separate R.V. College account	34,000.00	
		38,675.00
		$ 556,056.63

ROYAL VICTORIA COLLEGE

BALANCE SHEET

ASSETS

		May 31, 1924	May 31, 1923
CURRENT ASSET:			
Cash in Bank		$ 37,307.34	$ 1,810.47
INVESTMENTS		1,202,550.57	1,200,038.18
GROUNDS, BUILDINGS AND EQUIPMENT (Schedule A)		434,000.00	434,000.00
INTEREST DUE		1,500.00	Nil
DEFERRED CHARGES:			
Insurance Prepaid		Nil	110.10
		$1,675,357.91	$1,635,958.75

LIABILITIES

CURRENT LIABILITIES:			
R.V.C. Undergraduates Society	$ 21.00		
McGill University	15,076.36		
		15,097.36	1,820.82
ENDOWMENTS AND DONATIONS (Schedule B)		1,583,150.73	1,572,002.99
RESERVES:			
Royal Victoria College Reserve Fund		65,899.80	62,000.00
DEFERRED CREDITS:			
Interest Unallocated		1,500.00	Nil
LOSS AND GAIN:			
Gain on Revenue	$9,661.72		
Gain on Investments	48.30		
		9,710.02	134.94
		$1,675,357.91	$1,635,958.75

MONTREAL, 2nd August, 1924.

Audited and verified,
MACINTOSH, COLE & ROBERTSON,
Chartered Accountants.

CERTIFIED CORRECT:
A. P. S. GLASSCO,
Bursar.
S. R. BURRELL,
Asst. Bursar.

ROYAL VICTORIA COLLEGE

SCHEDULE "A"

GROUNDS, BUILDINGS AND EQUIPMENT:	
Royal Victoria College Property	$ 376,000.00
Royal Victoria College Building Equipment	58,000.00
	$ 434,000.00

SCHEDULE "B"

ENDOWMENTS AND DONATIONS:	
Capitalized Revenue for Residence Building	$ 63,377.36
Residence Building Fund	125,000.00
Strathcona Donation for Buildings and Grounds	434,000.00
Strathcona Endowment	960,773.73
	$1,583,150.73

ROYAL VICTORIA COLLEGE

Income and Expenditure for Year Ending May 31st, 1924

GENERAL MAINTENANCE

RECEIPTS:		1923–24	1922–23
Balance on Hand, June 1st, 1923		$ 134.94	$ 88.83
Interest on Investments	$60,442.93	.....	†78,088.11
Lunches	6,815.48	.....	5,444.17
Fees	56,394.67	123,653.08	52,688.20
		$ 123,788.02	$ 136,309.31
EXPENDITURES:			
Salaries		$ 7,916.71	$ 8,051.85
Materials, Supplies and Equipment		61.00	332.21
Books		145.58	182.10
Printing and Stationery		1,868.72	1,506.14
Travelling Expenses		122.00	Nil
Miscellaneous		3,035.73	2,508.62
Transferred to the following Departments:			
Faculty of Arts	$37,000.00		
Physical Education	3,500.00		
University Charges	10,000.00	50,500.00	50,500.00
Board and Residence		27,513.25	24,311.92
Building Maintenance		22,963.31	24,744.99
Surplus for year transferred to Loss and Gain Account		10,661.72	134.94 *24,036.54
		$ 123,788.02	$ 136,309.31

*Transferred to reserve fund.

†$18,042.00 was received in excess of the ordinary twelve months' income when the Royal Trust Company transferred to the University, the R.V.C. funds which had previously been held by them for the Strathcona Estate.

ROYAL VICTORIA COLLEGE

Income and Expenditure for Year Ending May 31st, 1924

FUNDED REVENUE AND RESTRICTED ACCOUNTS

	1923–24	1922–23
RECEIPTS:		
Interest on Investments	$ 15,047.54	$ 12,238.13
DISBURSEMENTS:		
Revenue Capitalized:		
R.V.C. Reserve Fund	3,899.80	2,158.98
Residence Building Fund	11,147.74	10,079.15
	$ 15.047.54	$ 12,238.13

MACDONALD COLLEGE

BALANCE SHEET AS AT 30th JUNE, 1924

ASSETS

	June, 30, 1924	June 30, 1923
CURRENT ASSETS:		
Cash	$ 2,187.60	$ 18,827.00
Accounts Receivable	18,871.37	14,470.55
Merchandise and Supplies	51,153.15	32,629.63
	$ 72,212.12	$ 65,927.18
DEFERRED CHARGES:		
Insurance	$ 7,158.10	$ 2,931.08
Operating Charges	1,223.41	719.10
	$ 8,381.51	$ 3,650.18
	$ 80,593.63	$ 69,577.36

LIABILITIES

CURRENT LIABILITIES:		
Caution Money and Other Deposits	539.19	363.40
Students' Council, Societies and Others	435.03	1,737.82
	$ 974.22	$ 2,101.22
FUNDED REVENUE AND DEPARTMENT:		
Balance July 1st, 1923	16,814.13	11,597.00
Current Period—Excess Income	4,945.00	5,217.13
	$ 21,759.13	$ 16,814.13
RESERVES:		
Material Stock Reserve	21,237.33	21,237.33
McGILL UNIVERSITY	20,176.77	28,436.22
SURPLUS:		
Excess Income for Year	18,385.83	3,805.75
Less Operating Charges	1,939.65	2,817.29
	$ 16,446.18	$ 988.46
	$ 80,593.63	$ 69,577.36

Montreal, 26th August, 1924.
Audited and verified subject to our report of this date.
(Signed),
MACINTOSH, COLE & ROBERTSON,
Chartered Accountants.

St. Anne de Bellevue, 16th July, 1924.
Certified Correct,
(Signed)
T. FRED. WARD,
Bursar.
JAS. H. CURRIE,
Accountant.

MACDONALD COLLEGE

STATEMENT OF INCOME AND EXPENDITURES

Year Ended June 30th, 1924

	June 30, 1924	June 30, 1923
INCOME		
Interest	$ 217,000.51	$ 202,419.94
Grants, Subscriptions	.....	1.00
Faculty of Agriculture	51,218.07	52,152.40
School of Household Science	9,217.29	8,152.84
School for Teachers	23,207.50	23,260.00
Summer Schools	.....	1,103.65
Residences	49,274.05	48,045.02
Dining Room	81,590.57	78,092.32
Post Office	1,867.84	1,843.98
Laundry Dept	7,866.89	7,387.13
Miscellaneous	5,675.36	4,656.46
	$ 446,918.08	$ 427,114.74
EXPENDITURE:		
Faculty of Agriculture	$ 116,320.97	$ 120,178.87
School of Household Science	16,624.78	16,313.22
School for Teachers	41,874.98	39,876.98
Summer Schools	.....	1,094.02
Bacteriology Department	6,548.94	7,503.59
Botanical Department	8,499.08	7,230.22
Chemistry Department	8,749.88	6,501.84
Entomology and Zoology	5,730.15	4,655.32
Physics Department	2,738.70	2,528.57
Library and Reading Room	4,294.24	3,943.83
Dining Room	65,196.64	63,680.31
Post Office	529.39	508.89
Laundry	6,469.90	6,547.49
Power House	66,832.27	74,055.81
College Administration, General	31,522.61	31,068.82
College Buildings—Maintenance	13,119.77	8,243.84
Residences—Maintenance	29,179.39	26,090.44
College Grounds—Maintenance	4,300.56	3,286.93
	$ 428,532.25	$ 423,308.99
Surplus for year	$ 18,385.83	$ 3,805.75

McGILL UNIVERSITY PUBLICATIONS

SERIES XII (REPORTS) No. 2

McGill University

Montreal

ANNUAL REPORT

of the

GOVERNORS, PRINCIPAL
AND FELLOWS

FOR THE YEAR
1924-1925

ANNUAL REPORT

OF THE

GOVERNORS, PRINCIPAL and FELLOWS

OF

McGill University

FOR THE YEAR 1924-25

To His Excellency the Right Honourable Sir Julian Hedworth Byng, Baron Byng of Vimy, G.C.B., G.C.M.G., M.V.O., Governor General and Commander-in-Chief of the Dominion of Canada, Visitor of McGill University.

MAY IT PLEASE YOUR EXCELLENCY:—

We have the honour to submit to you, as Visitor of McGill University, the Annual Report of the Governors, Principal and Fellows for the Session 1924-1925, being the one hundred and fourth year since the foundation of the University.

We have the honour to be
Your Excellency's most
obedient servants,

E. W. BEATTY,
Chancellor.

A. W. CURRIE,
Principal.

October, 1925.

REPORT OF THE PRINCIPAL

PROGRESS OF THE UNIVERSITY

The Province, the University and the School for Teachers

It seems at first sight anomalous to refer to the negotiations with the Government of the Province of Quebec, which were carried on last year under the head of 'progress' because there was no tangible result. Nevertheless, it is to be hoped that these negotiations resulted in placing the position of the University more clearly before the public and that they will ultimately result in obtaining from the Government a proper contribution toward the work which we are doing on their behalf. It is not out of place, therefore, to recount what happened during the session just past and, with a view to making the account as clear as possible, to relate briefly the past history of the school.

When Sir William Macdonald had determined to establish an Agricultural College at Ste. Anne de Bellevue he commenced the work, erected some of the buildings and appointed several members of the staff prior to handing over the newly formed institution to McGill. Shortly afterwards he decided to institute a school for teachers, and under an arrangement with the Provincial Government the school became the regular Normal School for all Protestant teachers in the Province of Quebec. Prior to this time the training of teachers had been carried on at the McGill Normal School, an institution at Montreal which in the year 1907, when the new arrangement was made,

was costing the Government the sum of $16,866.67 per annum. The agreement with the Government which was made at this time provided that the new institution should undertake the training of teachers *"in accordance with the present requirements of the Province,"* and the Government agreed in its turn to devote to the general needs of Protestant education, entirely apart from any other grant given for this purpose, the whole of the sum released by the discontinuance of the McGill Normal School. By 1909 the organization of the school was completed and the work of training teachers was being actively carried on.

Owing to the rapid increase in the number of students and to the higher cost of living it was not long before the cost of conducting the school began to rise and it increased from $20,250 in 1908-09 to $23,737 in 1912-13. It might be mentioned incidentally that the cost of conducting the Agricultural College had also increased and that Sir William Macdonald after for some time paying the deficits from his own pocket finally gave the University a further sum of $1,102,563.37 in order to meet them, but gave no further sums for the purpose of assisting the School for Teachers.

In the year 1916 the Governors of the University, with the consent of Sir William requested the Provincial Government to assist them in paying the increased cost of the School for Teachers, there being, as can be seen from the foregoing, no further moneys available for its upkeep, and in that year and the following year the Provincial Government made a grant of $5,000 to aid the work. In the year 1918 the grant was increased to $10,000 and this subvention was continued to 1924. At the end of that year, however, the Attorney General's Department informed the Provincial Government that their assistance to the School for Teachers was illegal and that the subvention of $10,000 per annum could not properly be given except with legislative sanction.

The position so far as the University was concerned immediately became serious. The University had undertaken to train teachers for the Province when there was a much smaller population and when the number of those proceeding to teaching diplomas was very much less. There were 116 students in 1907, whereas in 1923-24 there were 250; increased salaries and increased cost of materials and supplies had all contributed to additional expenditure and as a result the net annual cost of the school has risen to almost $50,000, a far greater sum than either Sir William Macdonald or the University had ever contemplated. Indeed, it is not going too far to say that the cost of the School for Teachers, owing to the additional work called for by the present requirements has become so excessive as to hamper seriously the work and development of the other departments of the College. The development of the School of Agriculture and the School of Household Science has been curtailed and their progress retarded, whilst all the requirements of the School for Teachers have always been provided.

The situation had been foreseen for some time. The Dean of the School for Teachers and the Principal of Macdonald College had made frequent representations to the University and had indicated that even with the grant of $10,000 per annum they were likely to experience a very great deal of difficulty. The Provincial Government was approached and undertook to reconsider the situation. Finally, towards the beginning of the present calendar year, several meetings were held between representatives of the University and a spcial committee appointed by the Protestant Committee of the Council of Public Instruction and after a great many misunderstandings had been satisfactorily cleared up the Protestant Committee passed a resolution recommending that the Government make a statutory annual grant of $25,000 per annum, the balance of the cost of the operation of the School to be found by the Univer-

sity. In making this grant the Government would not, it is hardly necessary to state, be contributing to McGill University. It would be assisting in the work of training teachers for schools, a work the whole burden of which, apart from some slight assistance, was being carried by the University. It is true that Sir William Macdonald had provided funds for this work and that the contribution of the University to the School for Teachers was, for the most part, from such funds, nevertheless there is no question that even if the Province contributed $25,000 the University would still be doing its full share and this was fully recognized by the Protestant Committee.

I feel it would be proper to say that both the University and the Provincial Government should feel very grateful to the members of the various committees who gave their time so freely in order that they might find some solution to propose to the Government. Unfortunately, however, the negotiations with the Government itself, in spite of the support of the Protestant Committee, resulted in nothing and with the prorogation of the Provincial Legislature the matter went over to the present session.

There were indeed some who threw difficulties in the way, declaring that McGill was seeking aid for herself at the expense of rural communities, and that any further funds granted to the School for Teachers would reduce the amount available for rural schools. Nothing could have been further from the truth. McGill, as we have already said, was only asking the Province for help in doing work which it is the duty of the Province to do and in which McGill is only an agent of the Province, and McGill asked especially that no funds be granted at the expense of Protestant education.

The position of the University regarding this question is, it must be acknowledged, embarrassing. The Council of Public Institution retain control of entrance requirements, the curriculum, the examinations and the diplomas. The Univer-

sity operates the School and pays the bills. It is quite true that the funds given by Sir William Macdonald for the purpose of operating the School are in the hands of the Governors of the University, that from the financial point of view, therefore, the school is a part of the University, that its staff is part of the University staff and its discipline is University discipline. From the academic point of view, however, the University has nothing to do with the school. Corporation, which controls the teaching carried on at McGill, has no supervision over the curriculum of the School for Teachers. It is quite clear that the University in operating this school is only carrying on on behalf of the Provincial Government one of the normal functions of that Government and cannot fairly be asked to do so at the expense of other departments which are admittedly more essential portions of the institution. We are willing to do our share, even more than our share, but it does not seem to us that it is out of the way for the Province to co-operate.

Sir William Macdonald when he founded Macdonald College wished to provide especially for the rural districts of the Province. It is only necessary to take at random from the list of Intermediate Diplomas granted last year the homes of any dozen of successful students. Here are twelve in the order in which they appear in the programme: Sherbrooke, Sherbrooke, Montreal, Valleyfield, Namur, New Richmond, Montreal, Johnville, Waterloo, Carey's Hill, Montreal, Lachine.

Surely an institution which brings together young people from all over our province to train them in one of the most essential walks of life is deserving of the utmost assistance. Surely competent teachers for rural schools are as urgent a need as any other. We hope fervently that the rural communities of Quebec, from whom for the most part the students of the School for Teachers are drawn and for whose interest the school exists,

will add their word to that of the Protestant Committee of the Council of Public Instruction and impress upon the Government the urgent necessity of giving the School the support which it needs.

"McGILL COLLEGE"

The New Arts Building

There might be a College of Arts without a University, but there could not be a University in any true sense of the word without a College of Arts. This it is which differentiates the University from the technical school and the correspondence college. The spirit of the Faculty of Arts, non-professional, non-technical and non-utilitarian permeates the whole life of the institution. The professional faculties and the professional associations with which they are connected are the first to recognize the value of a broad foundation of general education, and their increasingly strict requirements have been one cause of the rapidly increasing attendance in our own Arts Faculty.

There is another reason for this increase, however, which may be expressed in more than one way, and the same reason has brought about a great increase in the number of University students in the United States. There has grown up among business men and business corporations a reaction from that prejudice against college trained men which a few years ago undoubtedly existed. The college man of today finds his degree to be a real asset, and his work of finding a job is rendered considerably easier by the possession of such a qualification.

The Bell Telephone Companies in the United States, to take one example only, now have about one college graduate to every twenty of their male employees and for every fifty of their total employees. When it is realized that this company employs one out of every one hundred and fifty persons engaged in making their own living, the figures become still more significant. It is

interesting to note moreover that the same companies took into their employment one out of every twenty-two students graduating in the United States last year.

The result has been that a large number of students are following Arts courses in preparation for commercial as well as professional life, and even the foundation of Schools of Commerce and Colleges of Business Economics has not provided for all those thus seeking to qualify themselves. This is, of course, a purely utilitarian viewpoint, and it would be a pity were we unable to believe that the argument of the dollar is in general the only one which brings these crowds of young men and women to the University. We like to think and we believe it to be true that there is among our young people a real appreciation, even if not a very definite one, of the value of a University training, a real feeling that they will be better and happier, more useful to themselves and to the community for a few years spent at college.

There are, of course, some who come here because it is "the next thing," or because they want "a good time." Their numbers are not large, and in a country like Canada never will be large; nevertheless, with the growth of wealth and the increasing size of what may be called a leisured class, there is no doubt that the numbers of such students have increased and will continue to do so.

From one cause or another, then, the registration in the Faculty of Arts has steadily increased. The following table speaks for itself.

	ARTS		SCHOOL OF COMMERCE
	Undergraduates	Partials	
1917–1918	281	72	10
1918–1919	310	59	20
1919–1920	425	104	92
1920–1921	434	99	155
1921–1922	460	112	196
1922–1923	527	160	195
1923–1924	599	120	205
1924–1925	755	122	184

At a meeting of the Corporation of the University, held on December 10th, 1924, the following resolution was unanimously passed:—

"Whereas the number of students attending under the Faculty of Arts in this University has greatly increased in recent years and has now reached ten hundred and seventy-one, viz: 616 in courses leading to the degree of Bachelor of Arts, 149 in courses leading to the degree of Bachelor of Science in Arts, 184 leading to the degree of Bachelor of Commerce and 122 partials and pre-professionals, and

Whereas at least two successful standard years of study in this Faculty are now required for admission to study in the three professional Faculties of Medicine, Law and Dentistry, and a large proportion of these students desire to complete the full four years of their pre-professional study in the Faculty —and

Whereas the cost of education per student in the Faculty of Arts is much less than in any other Faculty, except possibly the Faculty of Law, and the educational return on economic investments in this Faculty is, therefore, correspondingly remunerative, and

Whereas the old style of internal college architecture has become altogether unsuitable to modern university methods of instruction and research, especially in the case of individual students or small groups of students attending advanced or post-graduate courses of study, and

Whereas the members of the teaching staff and the members of the student body of McGill reside remotely in all parts of the city of Montreal and suburbs and no sufficient contact between instructor and student is, therefore, possible unless the members of the teaching be provided with suitable office and conference-room accommodation situated on the University premises, and

Whereas the present Arts Building has become glaringly inadequate, unsanitary and unsafe and, at least in case of fire, distinctly

dangerous to the lives and limbs of professors and students:—

Therefore resolved that this Corporation in full session assembled, recommend with deference to the Board of Governors of McGill College and University, Trustees of the Royal Institution for the Advancement of Learning, that, necessary maintenance and repairs and all ear-marked trusts alone excepted, the costs of adequately reconstructing the present Arts Building do from the date of this resolution form a first lien and charge upon all available University resources and that, if possible, an effort be made to complete a substantial section of this work of reconstruction during the next long vacation."

In the report for last year and for the preceding year it had been pointed out that the most urgent need of the University at the present time was a new or remodeled Arts Building. The Governors, although no specific funds were available for the purpose, felt that the situation was sufficiently grave to justify them in making every effort to meet it.

Putting the financial difficulty entirely on one side there was still a very considerable problem in the way. The question whether there should be a completely new building or merely a reconstruction of the old one had to be faced. It is not unnatural that there are a great many graduates and friends of the University, as well as members of the University staff, who are loath to see a change in the old front of the Arts Building, still more its complete destruction. To them the old building seems instinct with the spirit of those who have made McGill, and to possess a power to inspire, such as no newer structure could inherit.

There is indeed no doubt that the group of buildings at the head of the avenue have a very distinctive character of their own; not only are they typical of the architecture of Montreal as it was when they were constructed; not only do they

remind us of the vision of our forebears, but they give the impression of an even greater age than they actually possess. We all feel, even if subconsciously, that the building is filled with the traditions of many former generations of teachers and students.

Yet it is only fair to remember that the Arts Building took years to assume its present form. The centre block and the East Wing were finished in 1843, the Molson Hall not till 1861. The lower story of the portions of the building between the central group and the East and West Wings was not added until 1861, the upper story not till 1880 and the portico did not take its present form much before the same date. The last change was made in 1888, when the top story of the East Wing was converted into the drawing room of the Faculty of Applied Science. The Arts Building, then, has existed in its present form for a little more than half its life time, and it may very well be argued that there would be no real break with tradition were it to be again remodelled. There are, of course, some who feel that the spirit of McGill is something which transcends the material limits of any building. They remind us that the Engineering Building and the Biological Building have risen on the ruins of others, that the Medical Buildings moved from the city to the site of the Biological Building, then to their present situation, and carried with them the spirit of their builders, their teachers and their students. They feel that McGill has entirely outgrown the old Arts Building and recall to our minds that when that building was finished the Faculties of Arts, Law and Applied Science who shared it had between them 234 students, and they compare this with 1,221 students using the same building today. Their solution of the problem would be a completely new building, monumental in design and considerably surpassing our present needs.

In the discussion which has taken place, however, the financial possibilities have had perforce

to be considered, and so far these have militated on the side of those who desire to see as little change as possible.

Plans which are at present being prepared for the consideration of the Board provide for a completely new interior, with greatly increased accommodation and of the most modern fireproof construction, behind the old front which has grown with the University and in which after all the spirit of the college seems to reside.

While no final decision has been taken, it is hoped that these plans will prove satisfactory and that when tenders have been received, it will be possible to go forward with construction, and that before long the staff and the students of the Faculty of Arts will be in possession of a building not only fitted to facilitate their work in every way but to inspire them still by its memories of the past.

Faculty of Applied Science

The Curriculum

The Faculty of Applied Science finds itself at the end of the year in possession of the new electrical wing. The Alternating Current and Direct Current laboratories have been moved out of the Engineering Building, thus allowing the space vacated to be devoted to other departments long cramped by want of it. Part of the new building is still left free; it is hoped that it will be possible, by utilizing this space, to institute shortly courses in Communication Engineering. There are many reasons for which we feel that this is desirable, indeed even necessary. Canada is a country of great distances and small population, where speed and certainty of communication is essential, not only to our material progress, but to efficient government. This is furthermore a branch of engineering in which the demand seems to be greater than the supply, an exceptional condition in the profession at the present time.

In the undergraduate part of the work our endeavour will be not so much to give technical instruction in the building up and use of communication equipment, as to furnish a thorough engineering background to equip the young engineer for employment in his profession, including in the fundamental courses illustrations of general principles in the form of laboratory experiments and problems relating specially to methods of communication. The main lines of study would be the Measurement of the Characteristics of Oscillating Circuits, Precision Measurements, Telephone and Telegraph Work and Transmission Problems.

On the research side we feel that there are two branches which are of very special importance in the communication field and which the University can carry out better than any other organization.

(1) The study of the interference of power circuits with neighbouring communication circuits, or as it is usually called "inductive interference". This problem is of ever increasing importance and the Railway Board when called upon to rule on questions of interference has in many cases to call in the services of the Bell Telephone Company since this company has done a great deal of work on this subject. There are many problems on which the Telephone Company has not the required information and they have repeatedly asked us to carry our research work along such lines, but up to the present time we have not had the required equipment.

(2) The second branch of research which we will carry out in the laboratory is the study of the interference with radio circuits and apparatus caused by faults in power and distribution systems.

We are of course aware that research work of this nature is being done in collaboration with the Department of Marine and Fisheries and the Research Council; nevertheless we think that there is ample room for further work and that it

will be many years before all problems will have been solved.

I have mentioned in a previous portion of this report that the Faculty of Applied Science has been giving a great deal of consideration to the general composition of their courses, and the special committee appointed during the session of 1922-23 has continued its work throughout the past year.

It has always been difficult for the engineer to combine with his engineering training, enough purely cultural studies to make his degree mean something more than a mere technical diploma, and when the Faculty of Applied Science was instituted at McGill and for many years thereafter, the need of technical training was predominant. There were no technical schools, there were few large industries, yet the country was being opened up at an unprecedented rate. There was need for a large number of young engineers, and the University gave them what was without doubt the best training for their work under all the circumstances, probably better training indeed than any other engineering school of that day. With the advance of time, however, industries have been organized, have established their own technical and engineering departments and the engineer today receives a great deal of his training after he has left the University.

From many causes, only one of which is the small amount of railroad construction work now being done in comparison with what was being done a few years ago, competition in the ranks of the engineering profession has become extremely keen and no engineer can hope to attain a really high position, unless he has not only the most thorough possible grounding in general engineering, but also ability to appreciate an economic or financial problem, and to express the result of his consideration in good, lucid and convincing English. Still more is this type of education, as distinct from purely technical instruction, necessary to the constantly

increasing number of engineering graduates who engage in work of a commercial, rather than of a definitely engineering nature. It is with these considerations in mind that the Faculty of Applied Science has determined upon the continuous raising of its entrance standards, reference to which has already been made, and on such changes in its curriculum as have already been decided upon.

Full Time Law Training

The Faculty of Law has continued during the last session to consider the question of its curriculum and methods of teaching. Following on the report quoted in extenso in last year's report of the University, the Faculty determined definitely to recommend the institution of a course which would require the undergraduate to spend his full time at the University in the study of Law and the Faculty passed a resolution, a copy of which follows.

> Whereas many practitioners complain that the time spent in attendance at lectures and in studying for examinations so restricts the attendance of students in offices that the practical training there received is in most cases altogether inadequate.
>
> And Whereas this Faculty is of opinion that the time spent by students in office attendance seriously interferes with their University studies.
>
> And Whereas this Faculty is of opinion that it is desirable that the periods devoted to the systematic study of law and to practical office training be separated.
>
> And Whereas it is also of opinion that three years should be devoted exclusively to the systematic study of law and that the experience gained in one year's attendance in a law office during ordinary office hours after the completion of the University law course and the passing of all examinations would be more

than the equivalent of the office training now received.

THAT: The Principal and Governors are requested to take the necessary steps to secure an amendment to the Acts governing the legal and notarial professions of students who have spent three years studying law in a university in the Province, have met all the requirements as to qualifications for admission to the said professions and have subsequently spent one year under indenture with a practising advocate or notary, as the case may be.

The General Council of the Bar was asked to support this resolution, as were also the Notarial Council and the other Universities. The General Council of the Bar and Laval University both expressed unanimously their definite concurrence. The University of Montreal made no opposition. The Notarial Council did not, however, see its way to agree, owing to some technical difficulties, and in consequence the proposal so far as it related to notarial students was dropped.

The negotiations being completed, an application was made to the Provincial Government and was granted. The method proposed by the Faculty of Law now provides an alternative method to those previously existing for students wishing to qualify for practice at the Bar.

The Agricultural Advisory Committee and the School of Agriculture

A step was taken during the last session which we hope will result in our School of Agriculture at Macdonald College acquiring an added usefulness for the farming interests of the province and for the province as a whole. Sir William Macdonald wished, we know, to give the greatest amount of assistance to the rural population of Quebec and the University cannot but feel keenly anxious to insure that the institution he founded is of the highest possible value to the agricultural community. The problem of agricultural education

is not an easy one nor one regarding which there is a great deal of data, nevertheless, there are certain points concerning which we have very little doubt. In the first place, agricultural education must be carried on. The work of the farmer is no longer haphazard. He must, if he is to succeed, operate his undertaking with the same efficiency, skill and knowledge as is exercised by the head of any commercial undertaking. He has no less need than has the merchant for a grasp of economic problems, ability to understand a financial situation and acquaintance with his markets and means of transportation. Agricultural education, in short, involves general education as well as the technology of agriculture. There are, of course, many difficulties which must be met and overcome. It is also true, however, that if the School of Agriculture is to give the maximum amount of service to the maximum number of people it must not limit its activities to the instruction of the undergraduates who seek a full university course. It must be prepared to assist the farmers of the province who are unable to attend it as undergraduates by giving extension courses and purely technical courses. It must be prepared to give them advice and assistance in all places, at all times, and in any difficulty. On the other hand, it must not be forgotten that no agricultural school would be worthy the name if it did not continuously carry out an exhaustive programme of research.

It is interesting in this connection to find that at the Annual Conference of the Universities of Great Britain and Ireland, held this year, the principal subject discussed was "The Universities and Agriculture." Sir Daniel Hall, Chief Scientific Adviser to the Minister of Agriculture of Great Britain, delivered an address which cannot but be interesting to us in our consideration of agricultural education. Speaking of Oxford and Cambridge, the institutions which train the bulk of the landowners of England, he says: "I conceive

that the universities do owe some duty to the land-owners who pass through them, and that it is possible to devise a course which is in the nature of a liberal education, but which yet leads the student to think about his responsibilities and opportunities as an owner of land.

The course should not be the one required to train the practical farmer, nor, on the other hand, should it be the course that the scientific investigator needs. It should be based on economics rather than on science, its object should be stimulus rather than instruction, and at its best it should succeed in putting the student in touch with the sources of information, both technical and economic, which would enable him to become a leader in his own countryside."

In Canada, of course, such a class is almost non-existent, but Sir Daniel Hall's next words are very apposite:

"I can conceive again that in other countries predominantly agricultural—as, for example, in Wales and Scotland, where young farmers do come to the university for eduction in the widest sense rather than for professional instruction—a similar liberal course should be devised, which again would aim at stimulus and the widening of the mind, through the medium of agricultural subjects rather than those more commonly included in the course of arts or science."

"Secondly," Sir Daniel continues, "let us consider the training of the practical farmer. While this should be purely professional, it is convenient that it should be given at the University, because there alone are gathered the laboratories, the libraries, and the teachers in the many special subjects of which the working farmer may rightly gain some appreciation. The course itself, however, should be definitely professional, and it may well be of a shorter duration than that which normally leads to a degree. Whether a two-year course or a three-year course is necessary depends to a large extent upon the soundness of the secondary edu-

cation which the student possesses when he reaches the University. He must know something of the fundamentals of chemistry and botany, but if he has to obtain this elementary instruction at the University, it becomes more difficult to compress his technical instruction in agriculture into a two-year course. It may, however, be insisted upon that the course should be drawn up on the basis that it aims at introducing the student to the art of the management of land and labour. It is not, in consequence, applied science, but applied economics, and in many respects we must be content to indicate the existence of sources of information of which the student can make use as and when he requires. Agriculture makes contact with too many sciences to allow a student in his course to pursue all of them, and we have to beware of the specialist who tends to insist on the importance of training in his particular subject." Sir Daniel's paper ends with a note regarding the training of those men "who are going to be teachers, officials, or scientific investigators in connection with agriculture. In this case he says, "I desire to emphasize the point of view that the agricultural training should be essentially postgraduate, based upon a degree in arts, economics, or pure science." This last point, it may be said, was not concurred in by some others of those present and it is doubtful whether we ourselves would agree with it.

"I thoroughly disagree," says Professor Hendrick of Aberdeen, "with those speakers who think a degree in agriculture cannot be made suitable for such purposes." Professor Hendrick goes on to explain the method adopted by the Scottish universities to meet the need: "The three Scottish universities have instituted an Honours Degree in Agricultural Science, which includes such subjects as agricultural chemistry and agricultural botany. In training for such a degree, if a candidate takes chemistry, he must take some chemistry in every year of a four years' course at the University. He takes to a large extent the same

classes in chemistry which a chemistry student takes, spending the Final Honours year at advanced chemistry, especially in its relations to agriculture. During the course he has to take the principal agricultural subjects as well, especially those which bear upon the particular branch of science he has chosen. That is, he studies for four years in the University, and, in addition, he must put in one year of practical work on a farm. It would be difficult to find students willing to extend that five years and spend a longer time, considering the inducements offered in agricultural science."

We believe, and we think we are justified in believing, that Macdonald College has in the past made contributions to Canadian agriculture which are of real value. We might, for example, note that 162 students from the Province of Quebec attended the short courses in Bee-keeping, Horticulture, Poultry Husbandry and Farm Engineering given last session—courses open to any one engaged in farming, and, so far as residents of the Province of Quebec are concerned, given free. The winter course in Agriculture, lasting 4½ months, is designed especially for the farmer who is unable to take a full period of training. Its object as given in the Announcement of the College is:

> "To give the largest amount of information and training in practical agriculture in the shortest possible time; to equip the farmer for solving his own farm problems; to awaken him to the many opportunities on the farm; to give him an inspiration along agricultural lines; and to enable him to fill a more useful place in rural citizenship. For students of the winter course in agriculture there is one examination only—at the end of each course. A certificate will be issued showing the standing made in each subject. Students who have passed the winter course with a creditable standing will be permitted to return and take

a second year in those subjects in which they desire to specialize."

In addition to the organizing of these courses the members of the College staff are always prepared to give and are constantly giving direct advice and aid to farmers in agricultural engineering, crop growing, animal husbandry, poultry culture, bacteriology, weeds and plant diseases, dairying, injurious insects, and horticulture. Members of the staff are constantly sent to make examinations in places where difficulties have arisen and to give the benefit of their experience and knowledge.

Turning to the B.S.A. course we find that there have been two hundred and thirty-eight graduates since the year 1911, and that during that period the numbers graduating have remained almost constant. It is not surprising that the Faculty of Agriculture has not increased as the others, for it is very doubtful whether the English-speaking agricultural population has itself increased.

In the first and second years of this course instruction is given free to residents of the Province of Quebec, the Province itself making a grant of $7.00 per month towards the student's expenses.

Research has been carried on since the inception of the College and has produced results which cannot be neglected. It would be the gravest of errors, and one into which I do not believe that many of our successful farmers of to-day would fall, to minimize the value to an agricultural community of an institution engaged in studying the scientific problems which underlie the business of farming.

I should like in this connection to quote a few words from a lecture on "Agricultural Colleges and Agricultural Development in Canada," by Professor Lochhead, before the Royal Colonial Institute:

"At the risk of repeating many things quite commonplace, may I contrast the two agricul-

tures—the agriculture before and that after the advent of Agricultural Colleges and experiment stations? The old agriculture was carried on according to traditional methods—methods, it is true, that were the result of centuries of experience, but unguided by scientific knowledge. While some of the methods have stood the test of the searchlight of science, many have had to be discarded, since they were based on fallacious grounds. The properties of the soil were only vaguely known; how the texture, moisture and contents affected the plant, and how the plant made its growth, were largely matters of conjecture. The old agriculturist had no means of combating many of the diseases of animals and plants, for bacteria and fungi had not been studied. These diseases were too often accepted as visitations of Providence, and in many quarters it was considered irreligious to interfere with the course of events.

The dairyman of a generation ago was not acquainted with pure starters and cultures, or with the part that bacteria play in producing beneficial as well as bad results in milk. The old grain-grower had to be content with sowing seed that was often mixed and inferior in quality, for the new science of plant breeding was unknown, and the superior strains produced by Professor Biffin, Dr. Saunders and many other plant breeders were still in the womb of time, and the time was not yet ripe for delivery.

The old fruit-grower laboured under disadvantages of a similar kind, for science had not yet shown him how to produce new and better varieties, or how to protect his orchards from insects and fungi; while the feeding and breeding of livestock were carried on after traditional methods, often wrongly, it is true, but in spite of all with much success. The modern methods are founded on the application

of agricultural chemistry and genetics, and are leading to greater practical results.

It must be recognized that agriculture is a most complex science, for in the first place it deals with the chemical and physical reactions in the soil of myriads of bacteria and protozoa. The aim of the scientific agriculturist is to regulate the activities of these organisms by proper working of the soil, by drainage, and by the use of fertilizers, so that the maximum crop can be produced without the loss of fertility. Again, the growing of crops involves a knowledge of chemistry and physics as applied to plants, and a knowledge of the habits and life histories of the insects and fungi that prey upon the crops, so that these pests may be controlled; and a knowledge of the laws underlying plant and animal breeding, so that better strains may be produced without the old haphazard and often fruitless experimentation that was formerly practised."

In spite, however, of all the good work which Macdonald College has done, we felt that the University and the farmer would be better off for more consultation and more co-operation; that it should be possible to bring about a unity of thought and effort in agricultural education between the University and the agricultural community. We believe that our school can do its best work in active partnership with the portion of the community which it is designed to serve, and that such partnership cannot but lead to satisfactory results for both the school and the farmer.

With these thoughts in mind it was decided towards the close of last session to organize an advisory agricultural committee to give their consideration to the problems as present facing us. The committee, it is to be noted, is appointed by the Governors of the University and reports directly to the Principal. The committee was duly formed and met on several occasions during

the past few months. The following gentlemen were good enough to consent to serve:

Mr. Gilbert Macmillan
Mr. R. R. Ness
Mr. Fred Kay, M.P.
Mr. F. E. M. Robinson
Mr. Edgar Budge
Mr. T. B. Macaulay
Mr. F. G. Gale
Mr. T. C. Armstrong
Lt.-Col. W. A. Grant
Mr. David Black

I should like to take this opportunity of expressing the very sincere thanks of the University to these gentlemen, who at one of their busiest periods were good enough to place their time and their knowledge at our service.

Since the constitution of the Advisory Agricultural Committee we have taken another definite step. The School of Agriculture, while according to the Statutes it has always ranked as a Faculty of the University, has not been organized like the other faculties and had, partly perhaps for this reason, not quite the status which we thought it merited. It had, to mention one point alone, no Dean, the functions of that office having been discharged by the Principal of Macdonald College. The first move made was to give the school a Dean of its own, thus commencing at least to bring its organization into line with that of the other faculties of the University. The Governors at the same time expressed their intention to ask the advice of the Advisory Committee concerning the budget of the school and this procedure was put in force during the present year.

There is still much work before the new committee and the School of Agriculture. We have probably before us a long period of re-adjustment and reorganization. It will be longer still before we are able to see the actual results of the work. Nevertheless a beginning has been made, a definite plan of co-operation between the University

and the agricultural community has been initiated, and we feel justified in hoping for some real results.

Department for Child Study

The Faculty of Medicine in addition to completing the organization of the Departments of Clinical Medicine and Experimental Medicine, reference to which was made in last year's report, and in beginning the work in the new Pathological Institute was enabled by the generosity of the Laura Spelman Rockefeller Memorial to take a definite step towards a special department for Child Study.

It has been impossible to date for us to function adequately in this important field. Research studies that we have conducted heretofore have been in the nature of isolated investigations, and there has been little opportunity for one worker to stimulate another. A Child Laboratory in connection with a nursery school will be supervised by members of our University staff engaged in such pursuits as internal medicine, pediatrics, physiology, psychology, psychiatry, dentistry, economics, pedagogy, household science and nursing, and will conduct a co-ordinated study of child development and of methods of child care in co-operation with the homes.

The trustees of the Laura Spelman Rockefeller Memorial were approached and it was not long before they had undertaken to give us the necessary assistance, agreeing to provide a sum of $10,000 per annum for five years. The University has undertaken to provide the following facilities:

1. *A suitable building in proximity to the University grounds to be utilized as a Child Laboratory.*

2. *A staff of workers who will conduct research studies.*

3. *Courses of training in child development.*

4. *Co-operation of Extension Department for the promotion of parent training in child development.*

The special staff of the clinic will consist of a Medical Director, an Associate Director, a nursery school teacher, a house-keeper and the necessary janitor service.

We owe to the same generous institution the gift of a Fellowship for study in Child Development in Teachers' College at Columbia University.

The Memorial, in addition to promising the sum of $10,000 per annum, had also provided the sum of $1,500, to cover the essential equipment of the clinic, and the work of organizing it will proceed as rapidly as possible.

We hope that this new branch of the University activities will be productive of much good and we feel ourselves under deep obligations to the institution which has made it possible.

Music and Education

The Dean of the Faculty of Music has during the past year been devoting a great deal of time and thought to the proper function of his Faculty in the University, and indeed it goes without saying that in the case of this Faculty as in that of the others, it is our duty to assure ourselves that our general university policies and theories are being followed and maintained.

We must remember, first, that there is a very great difference between the teaching of music technique and musical education. The child who learns to play an instrument or even masters the elementary theories of music is doing work which bears the same relation to his higher education as do his studies in arithmetic or geography to his college course. Secondly, we must remember that there are in reality three classes of persons to be considered. There is the young man or woman who wishes to adopt the playing of an instrument as a means of making a living, to become a professional musician, perhaps an orches-

tral performer. There is again the amateur—the student seeking a general education who perhaps quite rightly feels that music might as well be a part of that education as Classics, English or Economics. Lastly, there is the young man or woman whose youthful proficiency gives such promise as to make us foresee a place among the masters and teachers of the art.

It is evident that these three classes must be treated in quite different ways. The first, the would-be orchestral player, requires primarily technical training; he is not seeking, indeed he probably has no time to seek, a complete education. Nevertheless he is doing his share in the interpreting of a great art; he needs assistance and the University must be ready to assist him as it is ready to assist any other class of the community. Just how this assistance should be given, however, is somewhat difficult to say, for the work to be done is not, strictly speaking, university work, and the student is generally much younger than the undergraduate without even the amount of school training necessary to prepare him for entrance. The question obviously requires much thought. It seems possible that the solution may lie in passing on the responsibility for training of this nature to nidependent teachers, who would, however, be given the seal of the University's approval and any other aid which might be in our power.

With regard to the next class, what may be called the amateur, the question is still more difficult. It has not so far been possible for a student to obtain a musical education and at the same time a general cultural training. If he studied for a musical degree he could not get more than a modicum of general cultural studies. If, on the other hand, he studied for an Arts degree he might easily have to sacrifice a good deal of time which might have been devoted to an art deserving a place in education along with any of his other studies. It has been suggested that the solution lies in a programme of co-operation; that the stu-

dent in Arts might devote some of his time to musical subjects, such, for example, as the history and psychology of music, and that musical composition might form a part of his curriculum. Another possibility would be to include a certain number of Arts subjects in the musical curriculum, although it must be mentioned that the musician will probably say in regard to this proposal that these students should not really have a musical degree. The fact remains that they, like the other class of whom we have just been speaking, must be encouraged. Not only is it to such as they that Music must look for the material support which alone makes her existence possible, but they, too, are doing their share in keeping up the traditions of culture. It is our part to recognize the value of their aspirations.

With regard to the third class—the students of high promise who wish to devote their life to their art—the whole position is entirely different. To begin with, the numbers of these are very small. It is more than doubtful whether even by seeking them out we should ever find a group of more than ten or twelve in any one year. Nevertheless it cannot be denied that we have in them one of our most precious inheritances, a possession of which it is our duty to make the most. Such a student as this, by the time he comes to the University, has mastered the art of playing; he has also mastered a great deal of musical theory, probably as much as he need ever know; he certainly knows the facts even though he may not know precisely how to express them in technical language. Nowhere indeed does there exist a more striking example of the manner in which some minds stand far above others than we find in the case of the true musician. Music does not need to be put into him; it is in him and is ever striving to find an outlet. This student does not need a technical musical education, he needs an education which will make him acquainted with the wonders and the sorrows of history, with different forms of art—painting, sculpture, poetry—

so that thus, learning how others in their own way have expressed human thought and human aspiration, he may be the more fit himself to give voice to the feelings which he strives to interpret.

It has been suggested that for the graduate of such a course a Bachelor's degree seems rather unsuitable, that it expresses not so much an amount as a kind of academic training which the musician has not had and would not profit by. This is a matter for discussion, but in any consideration we give to the work of the Faculty of Music or its co-operation with the Faculty of Arts, we must remember that we cannot avoid the responsibility for bringing hidden possibilities to light and nurturing, wherever we find it, the flame of genius.

Interchange of Teachers with Scotland

During the past year an agreement was made with the National Committee for the Training of Teachers in Scotland for a reciprocal interchange of student teachers, to commence with the college year, 1925-26.

The Scottish Committee have undertaken to send us the most highly qualified young men available. Mr. James Malloch, the executive officer, says:—"In the first place, the student teachers to be sent to Canada by my Committee will in every case be Honours graduates in Arts or in Science and, if possible, also in Education, i.e., they will at least be expected to have the Mastership of Arts with Honours, the Bachelorship of Science with Honours and probably the Bachelorship of Education in addition. They will, as I have previously stated, be highly qualified people from an academic standard and be, what one might term, the 'pick' of our Universities."

These students will come to McGill either as partial students or as graduate students, aiming at obtaining a higher degree from this University. The conditions under which they will be able to obtain higher degrees will, of course, vary, but as

the intention of the Scottish Committee is to send them for one year only, their work will probably consist in making a study of the educational system here, as preparation for obtaining a higher degree in Scotland.

Student teachers sent by us to Scotland will be Bachelors of Arts, Bachelors of Science in Arts or Masters of Arts and will similarly be expected either to study for a higher degree in Scotland or to make a detailed study of the Scottish educational system.

The allowance given to the exchange student both in Scotland and Canada will be $1,200 for one year, with a possibility that in special cases the assistance may be extended for a second year.

Both here and in Scotland a part of their training will consist in teaching to the extent of at least ten hours a week, the arrangement, so far as we are concerned, being made in co-operation with the Dean of the Faculty of Arts and the Dean of the School for Teachers. The first holder of the fellowship to go from McGill is Mr. Maxwell McOdrum.

An exchange of a similar nature is being carried on with Teachers' College at Columbia University, which with McGill was selected for the purpose by the Scottish National Committee.

It is not out of place to express here our appreciation of the compliment paid us by the Committee, and the hope that the new arrangement will not only aid the cause of education, but do something to keep up good feeling and understanding between ourselves and our cousins in Scotland.

Undergraduate Activities

The undergraduates of McGill are expected to bear their part in the conduct of the University by assuming most of the responsibility for their own government, and the continued improvement in what may be called their corporate management of undergraduate affairs shows that they are quite capable of fulfilling their duty.

Probably the most important step taken last year was the institution by the Students' Council, upon their own initiative, of rules strictly regulating the hazing of Freshmen by Sophomores, including the fixing of a definite date by which amusements of this kind must cease. There is no doubt that hazing which was becoming worse from year to year had caused a great number of academic failures; there is even some reason to believe that on more than one occasion harm had been done to the health of the student. The move made by the Students' Council obviated the necessity of any action by the University and very little complaint was made of any hazing which was carried on last session.

Another important action which was taken last year was the preparation and approval by the Corporation of new constitutions for the more important student bodies. In that of the Students Society, (the organization which consists of all University graduates and the Executive of which is the Students Council) a valuable new provision requires undergraduate applications for permission to hold entertainments, to be passed by the Students Council, which forms for this purpose an Undergraduate Committee on Student Functions. The Faculty Committee on Student Functions of course continues, but there is no doubt that the assistance given by the Students Council will materially aid it in its work.

As a result of three years' work, there was formed the McGill Women Students' Society, a union which contains not only the undergraduates of the Royal Victoria College, but all women students of the University. At the same time all the other women's societies were remodeled so as to permit any undergraduate to become a member.

The McGill Literary Society has been able to establish a very successful Mock Parliament, said to be the only institution of the sort in any University of the Empire, where serious debating is carried on, and one which has roused a great deal

of interest among undergraduates and graduates of other Universities.

The McGill Canadian Club has continued its endeavours to maintain interest in national affairs and has heard such speakers as the Hon. H. M. Marler, M.P., the Hon. E. G. C. Page, Treasurer of the Australian Commonwealth; Mr. John Buchan and Sir George Foster. Such a list, and other names could be added, would be creditable to any club, and is remarkable for an undergraduate association.

In last year's report some mention was made of the effect of student activities on scholarship. It seems to me well worth while to quote from the annual report of Mr. B. C. MacLean, President of the Students' Council, and as such the mouthpiece of the undergraduates of McGill, some very sensible words on the subject:—

"A balanced programme of studies and athletics for each student has been emphasized many times by the Council this year as the only sane attitude to be adopted by an undergraduate at McGill University. But we are yet far from this ideal. Admittedly it is to study that a man comes to college and studies should be his first consideration. A reasonable participation in athletics and in other forms of student activities is also, however, a part of his education and enables him not only to appreciate the meaning of comradeship and develop the qualities of leadership, but also helps to instill a spirit of loyalty to his fellow students and his Alma Mater. This part of an education cannot be acquired as fully in the classroom or from books.

"At McGill we have, apart from athletics, a number of recognized activities through which a man may expend excess energy and balance his educational diet. The Daily, the Union, the Literary and Debating Society, the Canadian Club, the Musical Association, the Players' Club, the Annual Revue and the Undergraduate Societies are designed for this purpose.

"The multiplication of student activities and their resultant effect on examination failures has been the subject of discussion in this University as elsewhere. But it might be suggested in passing that it is not the recognized student activities, but rather the emphasis which many students lay upon the extra mural social activities of this city which as a rule is responsible for these failures. It has sometimes been stated that we are over organized and perhaps there is some truth in this statement. But if a reduction in the number of organizations is desirable, those which do not serve the greatest common purpose should first be eliminated. And among these the Sectional Clubs may be numbered. For the aim of the Students' Society is a cosmopolitan rather than a sectional one."

There were many ways other than these mentioned in which the initiative and energy of the undergraduate body were manifested, more indeed than space can be spared to recount. Yet one thing may very well be said: that the University has no more devoted servants than those of her students who act in the many executive positions which their general activities demand.

THE UNIVERSITY AND THE STUDENT

A part of the report for the year 1923-24 was devoted to a series of statements prepared by the different faculties showing the discrepancy between the number of students in any given class who entered the University and the number of students of that class who finally obtained their degrees, and some attempt was made to discover the reason for the losses which occurred. It was very disquieting to find, for instance, that out of a class of 145 which entered First Year Arts in 1920 only 89 remained to enter the Second Year in 1921, and only 65 graduated in course. In the Faculty of Applied Science out of 160 entrants in the Engineering Course 89 entered the Second Year and 48 graduated. In the Faculty of Medi-

cine out of 119 matriculants in 1920 only 88 entered the Fourth Year. Of the class of 41 who entered Law only 18 graduated in course and in Dentistry a matriculating class of 50 was reduced to 16.

Striking though these figures are there is nothing about them which is particularly new. Out of 35 men who entered Arts in 1899, 26 went on to the Second Year, 17 entered Third Year and 13 graduated. Out of 135 who entered Medicine in the same year 79 graduated. Out of 72 matriculants in Science 31 graduated in course and out of 19 who entered Law there were only 9 graduates.

There is one point in connection with all these figures which is worthy of note. In the class entering in 1899 the average loss at the end of the first year was 29% out of a total average of 66%; in the classes which entered in 1920, taking the same Faculties of Arts, Applied Science, Medicine and Law, the average loss in the first year was 42% out of a total average loss in four years of 52%. As regards Medicine, of course, we are not in the case of the 1920 classes, considering the number graduating, but only the number completing the first four years.

It may, of course, be contended with reference to the foregoing figures that they do not give us a proper basis upon which to form a conclusion, since they do not take into account the students who, although they do not graduate in course, merely drop one or two years and finally succeed in obtaining a degree.

With a view of ascertaining more accurately the proportion of students who actually graduate a further interesting investigation has been made by the Dean of the Faculty of Applied Science, who has obtained the following figures:—

Total Number of Students Admitted in Academic Years		Total Number Graduated in Academic Years		Percentage Eliminated
1899–90 to 1903–04	462	1902–03 to 1903–07	263	43.1
1904–05 to 1908–09	778	1907–08 to 1911–12	490	37.0
1909–10 to 1913–14	961	1912–13 to 1916–17	413	57.0
1914–15 to 1918–19	465	1917–18 to 1921–22	353	24.1
1919–20 to 1920–21	476	1922–23 to 1923–24	282	40.8

From this it appears that 3,142 students entered between 1899-1919 inclusive and that 1,801 graduated between 1903 and 1924 inclusive. It is thus evident that approximately 40% of those entering the University in the Faculty of Applied Science never completed their course or obtained a degree, and while similar figures have not been obtained for other faculties those already quoted have not led us to think that the result would be substantially different.

It is interesting to note in passing that while our figures thus show 40% of elminations, the average eliminations taken in a large number of American schools of Engineering were 60%.

In the report for last year it was suggested that responsibility for the failure of so many students should be laid partly upon the University, partly upon the school, and partly upon the student himself. Continued investigations during the last session have not caused us to alter our conclusions. It must be stated, however, that we have been unable to avoid the conviction that the student who fails does so, generally speaking, because he is deficient in mental equipment and that this deficiency is due either to a natural inaptitude for higher education or to insufficient pre-University training.

It was suggested in last year's report that the University might do better to lay more responsibility for his own education upon the student, but it is quite evident that by no means all students are capable of assuming such responsibility.

Although the fact that most failures occur in the first two years is in itself an almost definite proof that delinquence is due to mental irresponsibility and poor preparation, it is by no means the only proof. A general intelligence test applied by the Dean of the Faculty of Dentistry is reported by him as follows:—

The following short examination was given in the Faculty of Dentistry to the students of the Third and Fourth Years, at the beginning of the present session.

The following sentences were dictated to the students:

Ques. 1.—The recommendation, which I gave him, enabled him to obtain satisfactory accommodation.

The words "recommendation" and "accommodation" were mis-spelled in at least 90% of the answers.

Ques. 2.—The shadow seemed to recede as the light became more brilliant.

In this sentence the word "recede" was mis-spelled in more than half of the papers.

Ques. 3.—It is necessary to proceed slowly in mental training, and to permit the less difficult matters to precede the more complicated ones.

In more than half of the papers the words "proceed" and "precede" were mis-spelled.

Ques. 4.—Honour thy Father and thy Mother, etc. Complete the quotation and the article from which this is taken.

Only one or two students out of a class of seventy were able to complete the quotation correctly.

One student completed this quotation in the following words, "Honour thy Father and thy Mother, for of such is the kingdom of heaven."

Another student answered this question in the following manner, "Honour thy Father and thy Mother, to love and obey, so that the days of thy life may be everlasting".

Ques. 5.—Tell what you know of the Hon. W. E. Gladstone, Sir Wm. Dawson, Sir John Macdonald, Abraham Lincoln, Sir Harry Lauder.

"Hon. W. E. Gladstone" is described by one student as an explorer in Africa.

"Sir Wm. Dawson" was described as the Founder of McGill University He was also spoken of as a great Parliamentarian. Another student described Sir Wm. Dawson as a prominent merchant and statesman of Canada, he was also a Premier of Canada. He is described by another student as an explorer in the Northwest Territories of Canada. In another paper all that they knew of Sir Wm. Dawson is described in these four words, "He wrote a book".

"Sir John Macdonald", one student wrote he lived in Montreal, was Scotch, he endowed McGill University, and owned a tobacco plant in this city. In another paper he was described as the founder of MacDonald College. Another student wrote that MacDonald College was named after "Sir John A. MacDonald".

"Abraham Lincoln", was described by one young man as the first President of the United States, in the year 1792.

"Sir Harry Lauder", one student in writing of him, says, "he was converted the title of "Sir" by the late King Edward of England.

Ques. 6.—What and where are "The Strand", "The Eiffel Tower", "The Statue of Liberty", "The Suez Canal", "Niagara Falls"?

"The Strand" was described by one student as a "Theatre".

"The Eiffel Tower", was described by one student, "one of the wonders of the world, situated at the entrance to Paris, and has a big clock on top. Another student wrote, "is known as the leaning tower of Pisa and is in Persia." It was described by another young student as, "The Eiffel Tower leaning, is in India". All that another student knew about "Eiffel Tower" was written in these words, "Eiffel Tower, not in England".

"The Statue of Liberty" was described by one student as "being in Washington".

"The Suez Canal", was described as "being in Canada, between Lake Ontario and the St. Lawrence River". Another student wrote, "it is situated in Ontario". Another young man described "The Suez Canal as being in Canada ,leading from the Great Lakes to the Niagara River, and is in Michigan."

"Niagara Falls", is described by another student as "a City on the American Side". In another book it is described as "two large bodies of water, one in Canada and the other in the United States".

Ques. 7.—What do you understand to be the meaning of the words:
Fragile, Ductile, Malleable, Legible, Edible,
Tangible, Soluble, Permeable, Irascible, Incomprehensible.

"Tangible' was defined by one student as "to change one thing with another". By another student it was defined as "easily seen", and in another paper as "not exactly right". One student spelled "Tangible" "Tangable".

"Soluble" was spelled by one student "solubile".

"Permeable" was defined by one young student as "that which can be easily moulded". In another book as "remains unchanged".

"Legible" in another paper is spelled "legiable".

"Irascible" is spelled by one student "irrisiable", in another book it is spelled "irraciable", by another student it was spelled "irrasable".

In one book the word "poverty" was spelled "pauverty".

The following is a letter written in course of a trial as clerk-stenographer by a student who had

spent two years in the School of Commerce, but had been unsuccessful in passing his examinations:—

The Rubber Co.,
241 Guy Street.

Dear Sirs:

We are in receipt of your inquiry of 31st requesting quotations of oxigen and settelene.

We wish to quote you as follows, Oxigen $2 per 100 quebic feet, Settelene $3 per 100 quebic feet, these cilinders are lent to you for a period of thirty days, after which there will be a rental charge of 35 cents per week per cilinder.

Trusting we may be favored with your order for the above, we remain,

Yours very truly,

The training which this epistle indicates as being necessary is hardly that which a University is expected to supply. The student in question was applying for a position but, needless to say, did not obtain it.

I might finally quote a selection of errors in spelling, in definition and in the use of words produced by some of the undergraduates in the First Year of the Faculty of Arts:

Physicology, vilian, deterr, garrishly, predgudice, litterally, slopping (sloping), transalating, athelatics, elems, dazzeling, wonderous, (occasion) occaissions, profesion, proffession, proffessor, recieve, releave, acheivements, freinds, beleive, etc.;; apparantly, fraternaty, existance, obsolute (-ete), mustache, seperate, affect (effect), ambiguus, pattened lether, dissapated, visa versa, thereom, napsack, delt, envigorating, vaudervil, prevade, devellopped, curriculum, reitterate shimering, manish, mimicing, knickle (nickel) jewells, grining, snobishness, pertentious, financé and finacé, innitiation, iniciate, descent (dec-), magnifiscence, intollerable, pollitical, celuloid, fingures, imperceptably, blackbury, solilaquoys, conciderable, acadamy, rythm, peroes (pierrots), heros, struct (struck), doubtlessly, irresistable, chauffer, phisique, cemetary, Thackery, advantageous (for advantages), prevaling, ammount, ommitted, embarass, peper, coma, chatecism, persperation, unsymphatic, benefitial, eniciative, principal (le), existant, beleif, furnases, whithered, persue,

scources, repitition, oblidge, expond (expound), incite (insight), specktacle, ought (out), blairing, elapsation.

Delusion is a diversion, e.g., Placing pins on chairs was his favourite delusion. *Illustion* is a reference: He made an illusion to the episode of the night before.

Couple should not be used with reference to two *men*..

A bull is a male cow.

Ponderous means intense: He is a ponderous thinker.

Expound is to show how something is made: I expounded John how this was made.

Ponderous is to be in the mood of thinking wonderously: He became ponderous over his subject.

It might be a relief after these to quote some remarks of members of the same class which disclose, at any rate, a considerable degree of worldly wisdom:

"He succumbed to drunkenness after the imbibation of two quarts of Scotch whiskey."

"I hope to go through McGill Medical School, God willing and examiners permitting."

"A marriage is an optical illusion."

"After-dinner speakers are likely to grow tiresome if they have too many words at their disposal."

"Drunkenness is a lasting disgrace, but intoxication is something to be sworn at next morning."

The Dean of the Faculty of Applied Science in a report on the same subject says:

"I have no doubt that the principal causes are three—

(1) Lack of proper preparation, i.e., the matriculation standard is not sufficiently high.

(2) Lack of ability.

(3) Lack of application.

In many cases, of course, these three causes are more or less combined. It is a very difficult matter to get at with any degree of precision,

although the studies which we are now carrying on may in the end throw some light upon it."

The Dean also furnishes the following interesting reports concerning the class of 1924:

Record of the students who entered regularly, pursued regular courses of study and graduated with their class. Students in this group may have had conditions but finished their course at the end of the normal period. Students demoted to the class from preceding ones are not included.

CLASS OF 1924

Chemical Engineering, Civil, Electrical, Mechanical, Metallurgy, Mining

Freshman Year

Admissions during freshman year	160
Eliminations or withdrawals first semester	23
" " second "	48

Sophomore Year

Number beginning Sophomore Year	89
Eliminations or withdrawals during Sophomore Year	17

Junior Year

Number beginning Junior Year	72
Eliminations or withdrawals Junior Year	10

Senior Year

Number beginning Senior Year	62
Eliminations or withdrawals Senior Year	14
(Including six with minor deficiencies, which they could remove without further attendance.)	
Number graduating at end of senior year	48
Number graduating in October, 1924	6

Record of students demoted from the class of 1924 to lower classes.

Number demoted to lower classes	56
Number eventually graduated	none
Number still in College	16

(Of those demoted, 35 who were in the 1st year in 1920-21 are still in College, but many of these dropped out voluntarily for a year.

Record of students who entered in advanced standing from other universities.

Number admitted to class during last four years	36
Number eliminated or withdrawn	10*
Number graduating with class	23
Number still in college	3

*Including three who may remove deficiencies without further attendance.

Primary Reasons for Withdrawals and Eliminations	Number of Cases	Percent. of Total
1. Scholastic failure	81	72.3
2. Health of Student	1	0.9
3. Voluntary change of course	1	0.9
4. Financial difficulty	1	0.9
6. Change in status of family	1	0.9
7. Unknown reasons	27	24.1
Totals	112	100

A report furnished by the Dean of the Faculty of Arts shows the remarkable percentage of failures in the mid-session examinations of last year:

FACULTY OF ARTS
FIRST YEAR STUDENTS
Session 1924-25

	Arts	Commerce	Royal Victoria College Arts	Royal Victoria College Commerce	
Number registered in September, 1924	201	75	94	4	374
Number passed in all subjects at midsession	63	18	35	3	119
Number failed in one subject at midsession	51	24	26	..	101
Number failed in two subjects at midsession	25	10	13	..	48
Number failed in three or more subjects at midsession	47	16	16	1	80

It does not seem possible to read these reports without coming to the conclusion at which we have arrived, that many undergraduates are commencing their work at the University with nothing like the mental equipment which they need. Willing though the University may be to meet the problem of failure in undergraduate classes, it cannot succeed alone. The preparatory school must play its part by aiding to a certain extent in the elimination of unsuitable students and in raising the standard of those who are destined for a university career. There is no more erroneous idea than that a college education depends upon the capacity of the student to pay for it. That anyone who can finish school and secure by his own effort, by scholastic grants or by means of relatives sufficient funds to defray the expenses of an education, is thereby entitled to attend a university and obtain a degree, is a notion which implies an entire misconception of the purpose of a university and of its place in the general scheme of education.

In 1922, the latest year for which statistics are available, there were approximately 136,000 pupils in the secondary grades of Canadian public schools and 18,000 in universities. As these secondary grades occupy approximately four years, the true comparison would be with four classes only at the University, a number which would be very much smaller than the 18,000 given. It is quite clear from the figures themselves that our university system is incapable, for more reasons than need be cited, of such expansion as to increase appreciably the number of high school students proceeding to university courses. It is impossible then, for purely material reasons, for all to have an equal educational opportunity.

The evidence of the psychologist is strongly on the side of those who maintain that opportunities for higher education must necessarily be limited. There are, the psychologists tell us, children naturally bright, children naturally dull and intermediate children who come between the two. Our present school system regards them all as equal, expects them to finish the same work in the same time, and in consequence holds back the clever child to the standard of the intermediate one, while cramming the mind of the dull child so that he can pass examinations indicating attainments far beyond those which he actually passesses.

Surely it is a wrong policy to assume that our 136,000 children in the secondary grades of schools all possess the qualifications which will enable 18,000 or less to take a university course. We are driven almost inevitably to the conclusion that the school must aid in selecting the student for the university as well as in his preparation. If the present school courses are designed for and are suitable for the child of dull or mediocre mind, if the completion of such a course does not mean that the student is well enough trained to obtain a university degree of high standing—and our degrees should be second to none—after an ordinary course at that university, then the student

destined for a university must have more time at school, and the school leaving and matriculation examinations must be separated. If, on the other hand, the school course as laid down is sufficient the remedy would appear to lie in carrying down to the schools the method of sectioning classes by ability, which is now being adopted by some universities.

I do not wish to trespass upon the field of pre-matriculation training to any greater extent than I have already done, indeed I should not have done so at all had it not appeared quite impossible to deal with the subject under discussion without something more than a passing reference to the teaching preceding that of the universities. There must be unity in education. The methods followed at school and university must be based on the same theory of mental training. It is not only difficult, it is almost impossible for a student whose school training has not fostered independence in study, or who does not naturally possess an active and seeking mind, to acquire later the mental attitude and qualifications necessary to ensure success at the University.

So far as the University is concerned it seems that there are some ways in which we can improve a situation which obviously is in need of improvement. We cannot properly assume any responsibility regarding school curriculum. The University does not form part of the provincial educational system. Even the School for Teachers, operated as it is by the University, has a curriculum in the making of which we have no part. We can, however, take steps to ensure that the matriculant has gone further with his education than has so far been the case.

Progress in this direction is already being made. Thus in the Faculty of Applied Science the would-be entrant will in 1925 and 1926 be required to obtain at least 50% in each of the prescribed subjects and no conditions will be allowed at Matriculation. In 1927 the matriculant must pass the senior matriculation; in other words, he

must have attained a standard sufficient to enable him to pass out of first year Arts. In the Faculty of Arts the requirements have been increased also and they call for an average of 60% over all papers and a minimum of 40% in any one, nor are conditions permitted and the law which went into force last year requires students in Dentistry to possess the equivalent of two years in Arts.

Whether action of this kind will be sufficient can only be known by experience, but we feel that although the raising of the standard may for a while result in a number of students being unable to enter the University, those who are so prevented would almost without exception have fallen among the group failing in the first years of their course.

The second step which can be taken by the University is to design its courses in such a way as to increase the responsibility of the individual student.

We have both in last year's report and on frequent occasions since its publication observed that any system which places the primary stress on the combination of lectures and examinations cannot be satisfactory. The President of Dartmouth College recently appointed an undergraduate committee to consider the methods of instruction there in vogue and their report contains the following interesting paragraph: "If we are asked what above all accounts for the fact that students are in disrepute and that the American undergraduate turns his superabundant energies everywhere but to them, we would point to the way in which studies are administered. The student becomes 'a stenographer busily occupied in taking notes, so busy that he cannot think for an instant about what the lecturer is saying'."

When, however, any faculty of the University takes under consideration any change which would result in placing upon the student more of the responsibility for his own education it is almost impossible to avoid difficulties caused by the attitude of the student himself, an attitude for which,

indeed, he cannot be blamed. In the School of Commerce, for example, many students who found that they only had lectures in the morning felt that having no work to do in the afternoon they might as well obtain some part time employment. It appeared to be quite a novel idea that time left free from lectures or from specified work should be utilized by the undergraduate for study under his own orders and at his own discretion.

Some definite efforts have already been made. In the Department of Economics, for example, part of the work during the past year consisted in investigation by individual undergraduates of special problems, such as, for example, as the history of transportation in some portion of Canada. The undergraduate who made the investigation was then required to give the class the results of his work and a general discussion, led by the instructor, ensued. The plan was found to be eminently satisfactory: the individual gained a thorough knowledge of his subject and the others joining in the discussion very quickly acquired a new interest. To take another example, similar ideals inspire the teaching in the reorganized department of Medicine and Clinical Medicine. I can do no better than cite from the announcement of that department:—"The object of this course is to impart a sound knowledge of the principles of general medicine, in the diagnosis and treatment of disease; to afford a knowledge of the technique and, above all, so to train the student that he will be enabled to cultivate the faculty of critical judgment. The mere instruction, of itself, is regarded as but a part of the course, while the personal contact of students and patients throughout the final years is of prime importance."

In the Faculty of Law, as a result of the change in the requirements of the Bar Act concerning education, the Act now permitting a student to be called to the Bar after three years at college and one in an office, a committee has been, since the passing of the act, considering its curriculum. An interesting portion of their

report which is at present under consideration by the Faculty is the following:—

> "The responsibility for acquiring information and for forming his own opinions should be placed on the student; the function of the teacher not being so much the furnishing of information and ready-made opinions concerning law, as arousing interest, directing reading, assisting in the solution of difficulties, and training the mind in legal thinking, and in consequence the timetable should be arranged in such a way as best to secure adequate preparation for discussion in class and at the same time adequate discussion in class of the problems raised by private study."

It is interesting to note in this connection that there has been going on for some time in the United States a movement which aims at substitution for the lecture system, and some universities have already adopted what has been entitled the tutorial system.

The American Association of University Professors, who made a report during last year concerning the adoption of this system, characterize it as follows:—

> "The tutorial method of instruction is designed to achieve an educational result that may be summarized briefly as follows: the substitution of the mastery of a subject for the "accumulation of credits in separate courses; intellectual initiative and independence on the part of the student; such close and informal contact between teacher and student as will, on the one hand, bring into play the personal influence of the teacher and, on the other hand, both discover and meet the individual needs of the student. In the first place the tutorial method means intellectual emancipation and increased intellectual liberty for the individual student. . . In the second place, the tutorial method implies more teaching. It means that American colleges and universities attach themselves more firmly than ever to

the idea that all things humanly possible should be done to save the student's intellectual soul."

"Instead of leaving it to the student, as in continental universities, to work out his own salvation the necessary facilities being provided where he can find the mi fhe exerts himself, we in America, propose both to lead the student to water and to make him drink."

There is, indeed, a difference between such a system and that towards which we have at this University been working. It is not, we must confess, easy for us to see that if the student is led to the water and made to drink his initiative and intellectual independence will be thereby fostered. We for our part cannot help feeling that the undergraduate who is to realize the need of helping himself, must learn to observe, to consider and to conclude for himself. We do not believe that this result can be obtained by more teaching.

A third step can be and is being taken by the University. We can investigate the results of our training, we can follow up the graduates who have left our halls and inquire whether anything that we could have done would have made them of greater value to themselves or to the state, or would have improved the general level of education.

During the last session the Faculty of Applied Science sent to each of its graduates a questionnaire, calling for a considerable amount of information regarding purpose in taking the course, what his success has been since, and what he thought of the course which he had followed. I append a note from Dean H. M. McKay concerning the results.

Applied Science Questionnaire

Nearly six hundred replies to the questionnaire issued a few months ago to the graduates in Applied Science have now been received. The answers from the members of the classes of 1922-23-24, forty-three per cent. of whom replied, have

now been analyzed. Returns are still trickling in from the older classes and compilation is under way.

The commonest occupations for the three recent classes are Testing (Chemical and Electrical Graduates), Operation and Maintenance, Design, Research, Construction and Administrative or Executive positions, in the order named.

One-quarter of the graduates obtained their first positions through friends or members of their families; one-fifth through college or faculty, and one-fifth through connections formed before graduation. Eighty-eight per cent. of those replying are in positions of a definitely engineering character.

Nearly sixty per cent. chose engineering because of a distinct liking for engineering work, and twenty-seven per cent. in the belief that a course in engineering would be a good preparation for any kind of career.

The statistics regarding salaries are of particular interest. The "Median" salary, or that which in each group has as many larger as smaller, is stated below in each case:—

When beginning work after graduation	$110	per month
Six months after graduation	125	" "
Twelve months after graduation	140	" "
Two years after graduation	160	" "
Median salary, class of 1922	190	" "
Median salary, class of 1923	158	" "
Median salary, class of 1924	130	" "

The average salaries are very nearly the same as the "Median." A noticeable feature is that groups in occupations beginning at relatively low salaries are usually better paid at the end of two or three years than are those beginning at a higher rate.

A majority, but not a very sweeping majority, continue or have acquired an interest in cultural studies. General Literature and the Arts, Economics and Labour Relations, General Science, and History and Biography are the favourites. Twenty per cent. are not at all satisfied with the benefit derived from cultural studies in college

and some of the comments are caustic. About seventy-five per cent. state that they have derived benefits ranging from moderate to very great from the same studies. There is obviously room for improvement.

Eighty per cent. of the recent graduates replying state that they are satisfied with their jobs; eighty-six per cent. with their prospects. One hundred and fourteen like engineering work and three do not; while one hundred and thirty are glad they studied engineering and four are sorry.

It is impossible to summarize the large volume of constructive criticism and suggestion, although this constitutes perhaps the most interesting and valuable result of the questionnaire. It is hoped that it will be possible to publish the salient features as well as a summary of the returns from the older graduates at a later date.

The problem of teaching methods, difficult though it be, could not but be simplified had we a clear conception of the objects with which institutions of learning exist, and before we can determine the best way to teach, we must make up our minds why we are teaching at all. It is a matter of no small difficulty so to set down in black and white the place of the University in our general social scheme, and yet there is nothing more certain than that we must make an effort to do so, even though we cannot expect that effort to be immediately successful.

When by some method of consideration we have determined in a more or less definite way what our aims are, it will be possible for us to decide intelligently on the methods of reaching those aims. Here the responsibility must lie on the faculty and on the individual teacher. If the graduates of the University are to possess individuality the teachers must themselves have the utmost freedom of thought and expression, for a faculty whose teaching was all directed

by rule and rod could not avoid producing a standardized product. With this, however, must be combined the collective wisdom of the faculty as a whole; no teacher was ever the worse for learning the views of others regarding his own subjects and just as discussion is an essential part of our political system, so it is an essential part of our academic system, at any rate of that under which we live and work at McGill.

What is it, then, that we are trying to do?

What is it, then, that we are trying to do? We cannot be wrong in saying in the first place that the University exists to serve the individual and the community, one as much as the other. It seems at times as though the interests of the state and of the citizen conflict, yet it is after all upon the balance between individual liberty and civic authority that the equilibrium of our western civilization depends. To do its share in maintaining this balance is the great task of the University.

The next step in our train of thought is to consider in what manner we are to render our service to the state and to the citizen. One task, and a most important one, is that of improving the mental equipment of the individual; the equipment which enables him to achieve to a greater or less degree happiness and success; so far as the individual is concerned the enlargement of the capacity of the mind, rather than the increase of its contents is the true aim at which the teacher must direct his efforts. Again, from the point of view both of the individual and of the country, a most essential function of the University is the making of good citizens. It will be a long time before the world will be so ordered that nationality will have been forgotten and till that time comes there can be no higher duty for the citizen than serving the country and the community to which he belongs. The state which is well served by its citizens cannot fail of serving

its citizens well. Lastly there lies upon the University the duty of keeping alive and burning brightly the lamp of intellectual progress. To guide, to inspire, to teach, to search for truth amid the wonders of Science, to seek new ways to aid sick and suffering humanity, to carry on the traditions of wisdom; these are obligations which it owes not only to the individual and to the country but to the whole earth.

A. W. CURRIE,

Principal.

APPENDIX I

REGISTRAR'S REPORT

The enrolment for the session 1924-25 (exclusive of 310 short term students in the Faculty of Agriculture and 22 in the School of Household Science) was as follows:—

ARTS			
First Year—Men	201	...	...
Women	...	94	295
Second Year—Men	162	...	...
Women	...	68	230
Third Year—Men	80	...	...
Women	...	46	126
Fourth Year—Men	69	...	...
Women	...	45	114
Partials —Men	66	...	...
Women	...	41	107
Total —Men	578		
Women		294	872
Total in Arts			872
COMMRECE			
First Year—Men	76	...	...
Women	...	4	80
Second Year—Men	47	...	...
Women	...	4	51
Third Year—Men	52	...	...
Women	...	1	53
Partials —Men	12	...	...
Women	...	3	15
Total —Men	187		
Women		12	199
Total in Commerce			199
LAW			
First Year—Men	28	...	...
Women	...	1	29
Second Year—Men	25	...	25
Third Year—Men	11	...	...
Women	...	1	12
Total —Men	64		
Women		2	66
Total in Law			66
DENTISTRY			
First Year—	14	...	14
Second Year—	25	...	25
Third Year—Men	34	...	...
Women	...	1	35
Fourth Year	40	...	40
Total —Men	113		
Women		1	114
Total in Dentistry			114
MEDICINE			
First Year—Men	85	...	...
Women	...	5	90
Second Year—Men	93	...	...
Women	...	4	97
Third Year—Men	102	...	...
Women	...	5	107

MEDICINE (Continued)			
Fourth Year—Men	101	...	...
Women	...	4	105
Fifth Year—Men	91	...	...
Women	...	1	92
Total —Men	472		
Women		19	491
Total in Medicine			491
APPLIED SCIENCE			
First Year	...	...	124
Second Year	...	...	100
Third Year	...	...	84
Fourth Year	...	...	103
Fifth Year (Arch.)	...	...	4
Total in Applied Science	...	...	415
GRADUATE NURSES			
Total	...	...	25
GRADUATE SCHOOL			
Total—Men	119	...	...
Women	...	15	134
Total in the Graduate School			134
MUSIC			
Regular Students—Men	3	...	...
Women	...	17	20
Senior Partials —Men	17	...	...
Women	...	63	80
Total —Men	20		
Women		80	100
Total in Music			100
PHARMACY			
Total			58
PHYSICAL EDUCATION			
First Year—Women	...	...	26
Second Year—Women	...	...	24
Partials —Men	...	...	1
Total in Physical Education	...	...	51
SOCIAL WORKERS			
Total	...	...	26
SCHOOL OF AGRICULTURE			
First Year	...	...	16
Second Year	...	...	6
Third Year	...	...	13
Fourth Year	...	...	16
Partials	...	...	4
Total in Agriculture			55
SCHOOL OF HOUSEHOLD SCIENCE			
Institution Administration, Junior	...	...	19
Institution Administration, Senior	...	...	17
B.H.S.—Third Year	...	...	1
B.H.S.—Fourth Year	...	...	6
Partials—Home Makers 29			
Autumn Short Course 16	...	...	47
Student Workers 2			
Total in Household Science			90
Total—Men			2,082
Total—Women			614
Grand Total			2,696
Less Registered in Arts and Medicine, 12 Men and 4 Women			16
			2,680

GEOGRAPHICAL ORIGIN OF STUDENTS, SESSION 1924-25

	Agriculture (Including Short Term Students)	Applied Science	Arts	Commerce	Dentistry	Household Sciences (Including Short Term Students)	Graduate Nurses	Graduate School	Law	Medicine	Music	Pharmacy	Physical Education	Social Workers	Total
Alberta—Men	..	4	2	1	4	..	..	1	1	16	..	..	..	..	29
Women	..	..	1	1	..	2	..	..	1	3	1	..	3	..	12
British Columbia—Men	..	19	5	3	3	..	..	7	..	26	..	..	..	..	63
Women	..	..	2	1	..	1	..	1	..	3	4	..	3	..	15
Manitoba—Men	..	4	..	2	..	..	..	3	..	5	..	..	..	..	14
Women	..	..	2	..	..	..	..	1	..	..	1	..	..	..	4
New Brunswick—Men	1	5	16	9	6	..	..	4	1	37	..	..	..	..	79
Women	..	..	9	..	..	5	2	2	..	..	..	..	4	1	23
Nova Scotia—Men	6	18	5	6	7	..	..	7	..	19	..	1	..	1	70
—Women	..	..	1	..	..	9	2	1	..	..	..	..	2	1	17
Ontario—Men	22	69	68	50	8	..	..	20	3	83	..	..	..	..	323
—Women	6	..	19	2	..	35	7	..	..	1	..	..	12	2	84
Prince Edward Island—Men	1	..	5	..	2	..	..	2	..	14	..	..	..	..	24
Women	..	..	6	..	..	1	1	..	..	..	1	..	..	..	9
Quebec—Men	247	256	399	101	68	..	..	48	56	148	10	55	1	1	1,417
Women	39	..	249	8	1	55	10	14	2	9	80	..	24	19	510
Saskatchewan—Men	..	3	3	..	6	..	..	3	..	15	..	..	..	..	30
Women	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Africa (West)—Men	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
(South)—Men	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
British Guiana—Men	..	..	1	1	..	..	..	..	..	1	..	..	..	..	3
British West Indies—Men	3	8	11	2	1	..	..	1	1	21	..	1	..	..	49
China	..	1	..	..	..	..	..	1	..	..	..	..	..	..	2
Cuba	..	1	..	..	..	..	..	..	..	1	..	..	..	..	2

	Agriculture (Including Short Term Students)	Applied Science	Arts	Commerce	Dentistry	Household Science (Including Short Term Students)	Graduate Nurses	Graduate School	Law	Medicine	Music	Pharmacy	Physical Education	Social Workers	Total
Egypt	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
England—Men	7	9	5	2	..	..	..	6	..	1	..	..	..	..	30
Women	..	..	..	..	..	1	1	..	..	..	..	..	1	..	3
France	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Guatemala	..	2	..	..	..	..	..	..	..	1	..	..	..	..	3
Holland—Women	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
India	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2
Ireland—Men	..	..	4	..	..	..	..	..	..	..	..	..	..	..	4
Women	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Italy	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Mauritius	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Newfoundland—Men	..	6	15	..	1	..	..	5	..	7	..	..	..	..	34
Women	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
New Zealand	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Porto Rico	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Scotland—Men	1	..	1	..	..	..	..	..	..	..	..	..	..	..	2
Women	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
United States—Men	3	8	34	10	7	..	..	5	1	74	..	1	..	..	143
Women	..	..	5	..	..	1	..	1	..	3	3	..	1	..	14
Venezuela	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	365	415	872	199	114	112	25	134	66	491	100	58	51	26	3,028
Less registered in more than one Faculty															16
															3,012

Degrees Conferred

Bachelor of Arts (B.A.)—		
Men	57	
Women	33	
		90
Bachelor of Science in Arts (B.Sc.)—		
Men	12	
Women	8	
		20
Bachelor of Commerce (B.Com.)—		
Men		
		51
Bachelor of Science in Applied Science (B.Sc.)—		
In Chemical Engineering	8	
In Civil Engineering	13	
In Electrical Engineering	16	
In Mechanical Engineering	27	
In Metallurgical Engineering	6	
In Mining Engineering	13	
		83
Bachelor of Architecture (B.Arch.)		4
Bachelor of Civil Law (B.C.L.) Men		10
Bachelor of Laws (LL.B.) Men		2
Bachelor of Science in Agriculture (B.S.A)		14
Bachelor of Music (Mus.Bac.)		2
Bachelor of Household Science (B.H.S.)		6
Doctor of Dental Surgery (D.D.S.)		40
Doctor of Medicine and Master of Surgery (M.D., C.M.)—		
Men		97
Master of Arts (M.A.)—		
Men	8	
Women	4	
		12
Master of Science (M.Sc.)—		
Men	26	
Women	2	
		28
Master of Science in Agriculture (M.S.A.)—		
Men		5
Doctor of Philosophy—		
Men	5	
Women	1	
		6
Total		470

The Honorary Degree of Doctor of Laws was conferred on the following:—Arthur Edwin Boycott, M.A., D.M., F.R.S., Director of the Pathological Department, University College Hospital, London, England, and Graham Professor of Pathology in the University of London; Edward Wentworth Beatty, B.A., K.C., President of the Canadian Pacific Railway and Chancellor of McGill University; Ernest Martin Hopkins, A.B. and A.M. (Dartmouth) Litt.D., LL.D., President of Dartmouth College, Hanover, New Hampshire, U.S.A.

Diplomas and certificates were also awarded as follows:—

(1) Diplomas:—		
Diploma of Pharmacy	13	
Diploma of Social Science	3	
Diploma of Graduate Nurses	1	
Diploma of Physical Education	18	
Diploma of Licentiate in Music	2	
		37
(2) Certificates:—		
In the School for Social Workers	3	
In the School for Graduate Nurses	16	
		19

APPOINTMENTS

S. W. Bliss, M.A., Ph.D.
Assistant Professor of Bio-Chemistry.

William Wallace Goforth, B.A. (Toronto)
Lecturer in Economics.

Lancelot T. Hogben, M.A. (Cantab) D.Sc. (London)
Assistant Professor of Zoology.

S. M. Rosenthal, M.D.
Lecturer in Pharmacology.

F. M. Wood, M.A., B.Sc.
Lecturer in Civil Engineering.

PROMOTIONS AND CHANGES OF TITLE

H. Barton, B.S.A.
Appointed Dean of the Faculty of Agriculture.

W. L. Bond, B.A., B.C.L., K.C.
From Lecturer to Professor of Dental Jurisprudence.

J. F. Burgess, M.D.
From Demonstrator to Lecturer in Dermatology.

D. G. Campbell, B.A., M.D.
From Demonstrator to Lecturer in Therapeutics.

C. A. Dawson, B.A., Ph. D.
From Assistant to Associate Professor of Sociology.

L. M. Lindsay, M.D.
From Demonstrator to Lecturer in Pediatrics.

A. W. McClelland, D.D.S.
From Associate Professor to Professor of Orthodontia.

Ira A. MacKay, M.A. and LL.B. (Dal.), Ph.D. (Cornell), LL.D. (Queen's)
From Acting Dean to Dean of the Faculty of Arts.

E. H. Mason, Ph.B., M.D.
From Lecturer in Medicine and Bio-Chemistry to Assistant Director of the Medical Clinic.

William Conway Quayle, B.Sc., M.A.
From Lecturer to Assistant Professor of Physics, Macdonald College.

I. M. Rabinowitch, M.D.
From Lecturer to Assistant Professor of Medicine.

R. R. Struthers, B.A., M.D.
From Demonstrator to Lecturer in Pediatrics.

T. R. Waugh, B.A., M.D.
From Lecturer to Assistant Professor of Pathology.

A. L. Wilkie, B.A., M.D.
From Demonstrator to Lecturer in Pathology.

RESIGNATIONS

S. B. Slack, M.A.
Professor of Greek. Retired.

Basil Williams, M.A.
Professor of History. To accept a similar position in the University of Edinburgh.

DEATHS

HENRY MELBOURNE LAMB, M.Sc.
(Associate Professor of Civil Engineering). Died April 1st, 1925.

F. A. L. LOCKHART, M.B. (Edin.), M.D.
(Clinical Professor of Gynaecology). Died January 10th, 1925.

DUNCAN MCEACHRAN, D.V.S., V.S. (Edin.), F.R.C.V.S. (Lond.), LL.D. (McGill)
(Emeritus Professor and Dean of the Faculty of Comparative Medicine and Veterinary Science). Died October 17th, 1924.

JAMES B. MORISON, D.D.S.
(Professor of Orthodontia). Died December 7th, 1924.

ALEXANDER ARMOUR ROBERTSON, B.A., M.D.
(Lecturer in Medicine). Died March 25th, 1925.

JOSEPH STAFFORD, M.A., Ph.D.
(Associate Professor of Zoology). Died March 23rd, 1925.

APPENDIX II

PUBLICATIONS

The following lists contain such publications of members of the University Staff as were reported for the period July 1, 1924 to May 31, 1925, in response to a notice sent from the Library in April 1925.

BANCROFT, J. AUSTEN.

Restoration of the oldest known forest. (Science. Vol. LXI, p. 507-508, May 15, 1925.)

BEMONT, L. H.

Finishing surplus cockerels for market. (Jour. of agri., Vol. 28, p. 38, Sept., 1924.)

BOURNE, C. R.

A case of epidermolysis bullosa. (Can. med. assn. jour., Vol. XV, p. 404, April, 1925.)

BOURNE, WESLEY.

Anaesthesia in acute abdominal operation. (Can. med. assn. jour., Vol. XIV, p. 835-836, Sept., 1924.)

Anaesthesia in obstetrics. (Can. med. assn. jour., Vol. XIV, p. 702-703, Aug., 1924.)

The hormone of oestrus. (Can. med. assn. jour., Vol. XV, p. 171-173, Feb., 1925.)

On the disposition of ether in the body. (Can. med. assn. jour., Vol. XV, p. 84-85, Jan., 1925.)

BOURNE, WESLEY *and* STEHLE, R. L.

The excretion of phosphoric acid during anaesthesia. (Amer. med. assn. jour., Vol. 83, p. 117-118, July 12, 1924.)

BOURNE, WESLEY, *joint author, see* STEHLE, R. L., BOURNE, WESLEY, *and* LOZINSKY, EZRA.

Uber die pharmakologische Wirkung von Athylenoxyd.

BOVEY, WILFRID.

McGill and her builders. (Can. mag., Vol. LXIII, p. 388-396, Nov., 1924.)

BRIDGES, J. W.

A reconciliation of current theories of emotion. (Jour. of abnormal psych. and social psych., Vol. XIX, p. 333-340, Jan.-Mar., 1925.)

BUNTING, T. G.

The development and extent of small fruits in Canada. (Quebec Pomological and fruit growing society. Annual report, 1924. *In press.*)

The economical production of strawberries and raspberries. (Ontario. Fruit growers' association. Annual report, 1924. *In press.*)

The extension of strawberry culture in Quebec. (Jour. of agric., Vol. 28, p. 70, Nov., 1924.)

Garden reminders. (Family herald and weekly star. Vol. LXI, no. 16, Apr. 22, 1925 no. 17, Apr. 29; no. 18, May 6; no. 19, May 13; no. 20, May 20; no. 21, May 27; no. 22, June 3; no. 23, June 10; no. 24, June 17; no. 25, June 24.)

A message to fruit growers. (Jour. of agri., Vol. 28, p. 93-94, Jan., 1925.)

A 1925 orchard spray campaign. (Jour. of agri., Vol. 28, p. 168, May, 1925.)

Pruning the apple orchard. (Jour. of agri., Vol. 28, p. 97, Jan., 1925. Quebec. Pomological and fruit growing society. Annual report, 1924. *In press.*)

The thinning of apples. (Jour. of agri., Vol. 28, p. 185-186, June, 1925.)

BURGESS, J. F.

A method of growing and preserving giant cultures of ringworm fungi for study and teaching purposes. (Jour. of international assn. of med. museums. *In press.*)

Some recent researches on iodide and bromide eruptions. (Can. med. assn. jour., Vol. XV, p. 178-179, Feb., 1925.)

An unusual case of ringworm in an adult (due to trychophyton gypseum). (Can. med. assn. jour., Vol. XIV, p. 1209-1210, Dec., 1924.)

BURKE, H. E., *joint author, see* TAIT, JOHN *and* BURKE, H. E.

The role of platelets in mammalian blood coagulation.

BYERS, W. G. M.

Dystrophia epithelialis corneae. (Amer. ophthal. soc. trans. Vol. 23, 1925. *In press.*)

Frank Buller. (Surgery, gynecology and obstetrics. Vol. 40, p. 439-443, Mar., 1925.)

CALDWELL, WILLIAM.

Canadian philosophy and Canadian philosophical activity. (In Reichl's Philosophischer almanach, 1925.)

CAMPBELL, D. G., *joint author, see* LEWIS, D. SCLATER, CAMPBELL, D. G., MALLOCH, ARCHIBALD, *and* MACDERMOT, H. E.

Pharmacopoea of the teaching hospitals, McGill University.

CARLESS, WILLIAM.

Arts and crafts in Canada. (Family herald and weekly star. Vol. LVI, no. 13, p. 29-30, Apr. 1, 1925; no. 14, p. 29-30, Apr. 8, 1925.)

CASHIN, M. F., *joint author, see* KAUFMAN, JOSEPH *and* CASHIN, M. F.

A case of hypernephroma associated with thyroid hyperactivity.

CASHIN, M. F., *joint author, see* TAIT, JOHN *and* CASHIN, M. F.

Some points in relation to the structure and function of the spleen.

CASSIDY, JOHN.

Cause of death in mammals by lowering of body temperature. (Read at the meeting of the Royal Society of Canada, May 1925.)

CASSIDY, G. J., DWORKIN, S. *and* FINNY, W. H.

The effect of temperature upon the rate of action of

insulin in mammals. (Read at the meeting of the Royal Society of Canada, May 1925.)

Thermotactic action of insulin. (Read at the meeting of the Royal Society of Canada, May, 1925.)

CONKLIN, RAYMOND L.

Our present knowledge of abortion and bovine tuberculosis; paper read at the 4th annual convention of the Canadian Society of Technical Agriculturists, June, 1924. (Sci. agri. Vol. 5, p. 239-245, Apr., 1925.)

CORBETT, PERCY ELLWOOD.

The consent of states and the sources of the law of nations. (British year book of international law, 1925, p. 140-150.)

Geneva—or thereabouts. (Teachers' mag. Vol. VII, p. 14-16, Feb., 1925.)

The league of nations and the protocol. (McGill news, Vol. 6, no. 1, p. 2-4, Dec., 1924.)

What is the league of nations? (British year book of international law, 1924, p. 119-142.)

CRAMPTON, EARLE W.

Care of the farm horse stock. (Can. countryman. Vol. XIV, p. 271, Feb. 28, 1924.)

Dry meal feeding for market pigs. (Farmer's advocate. Vol. LIX, p. 1650, Nov. 13, 1924.)

Feed and care of the litter. (Jour of agri. Vol. 27, p. 178, June, 1924.)

Handling the nursing sow. (Jour. of agri. Vol. 27, p. 159, May, 1924.)

The horse on the farm. (Jour. of agri. Vol. 28, p. 15, Aug., 1924.)

Little talks on swine. (Family herald and weekly star. A series published weekly.)

The piggery in December. (Jour. of agri. Vol. 28, p. 79, Dec., 1924.)

The piggery in February. ((Jour. of agri. Vol. 28, p. 114, Feb., 1925.)

Preparations for the spring litters. (Can. countryman. Vol. XIII, p. 1757, Dec. 20, 1924.)

Starting the young pigs right. (Jour. of agri. Vol. 28, p. 163, May, 1925.)

CROWDY, C. T.

Primary endothelioma of the peritoneum. (Surgery, gynecology and obstetrics. Vol. 40, p. 196-198, Feb., 1925.)

DAVIES, H. WHITBRIDGE, MEAKINS, J. C., *and* SANDS, JANE.

The influence of circulatory disturbances on the gaseous exchange of the blood. V. The blood gases and circulation rate in hyperthyroidism. (Heart. Vol. XI, p. 299-307, Dec., 1924.)

DE LONG, W. A.

The availability of organic nitrogen—a resumé. (Sci. agri. Vol. 5, p. 205-210, Mar., 1925.)

The big three: nitrogen, phosphorus and lime. (Jour. of agri. Vol. 28, p. 116-117, Jan., 1925.)

The fundamental factor in a permanent agriculture; soil fertility. (Jour. of agri. Vol. 28, p. 83-84, Dec. 1924.)

The rational and profitable use of nitrate of soda. *Not yet published.*

The winning of nitrogen. (Jour. of agri. Vol. 28, p. 131-132, Mar., 1925.)

DICKSON, B. T.

Oat smut control in 1923. (Quebec Soc. prot. plants. 16th annual report, 1924, p. 77-79.)

Plant pathology in Canada; presidential address before Canadian phytopathologists at Ottawa, Dec. 1924. (Sci. agri. Vol. 5, p. 211-217, Mar., 1925.)

DOUGLAS, A. V.

History of the McGill Physical Society, 1897-1915. (McGill news, Vol. 6, no. 2, p. 24-26, Mar., 1925.)

Measuring the universe. (Discovery. Vol. V, p. 196-198, Sept., 1924.)

Note on ionization clouds in an expansion chamber. (Roy. soc. Can. trans. Ser. III, vol. XVIII, sec. 3, p. 133-136, 1924.)

DU PORTE, E. MELVILLE.

A preliminary note on some endophytic protozoa. (Quebec. Soc. prot. plants. 16th annual report, 1924, p. 94-96.)

DWORKIN, S., *joint author, see* CASSIDY, G. J., DWORKIN, S. *and* FINNY, W. H.

The effect of temperature upon the rate of action of insulin in mammals.

Thermotactic action of insulin.

ELVIDGE, A. R., *joint author, see* TAIT, JOHN *and* ELVIDGE, A. R.

The injection of quartz particles in the blood stream.

EMMONS, W. F.

Relation between volume and diameter of mammalian red blood corpuscles. (Read at the meeting of the Royal Society of Canada, May, 1925.)

EMMONS, W. F., *joint author, see* TAIT, JOHN, *and* EMMONS, W. F.

Experiments and observations on crustacae. Pt. VI: The mechanism of massive movement of the operculum of *Balanus nubilis.*

EVE, A. S.

Dizzy arithmetic. (Atl. mo. Vol. 135, p. 165-170, Feb., 1925.)

Letter: on the flow of sap in trees. (Nature. Vol. 114, p. 827, Dec. 6, 1924.)

FINNY, W. H., *joint author, see* CASSIDY, G. J., DWORKIN, S. *and* FINNY, W. H.

The effect of temperature upon the rate of action of insulin in mammals.

Thermotactic action of insulin.

GOLDBLOOM, ALTON.

Hypertrophic stenosis of the pylorus. (Med. clinics of N.A. Vol. VII, p. 1739, May, 1924.)

Modern tendencies in infant feeding. (Can. med. assn. jour. Vol. XIV, p. 709-721, Aug., 1924.)

Renal glycosuria in an infant twenty months of age. (Can. med. assn. jour. Vol. XIV, p. 950-952, Oct., 1924.)

GORDON, A. H.

About telling the truth. (Can. med. assn. jour. Vol. XIV, p. 981-982, Oct., 1924.)

A case of sprue. (Can. med. assn. jour. Vol. XV, p. 522-523, May, 1925.)

GORDON, ALEX. R.

The religion of the Bible. Chi., Univ. of Chicago press, 1925.

GRAHAM, W. C.

Harvard codices of the scholia of bar Hebraeus. (Amer. jour. of Semitic lang. Vol. XLI, p. 102-135, Jan., 1925.)

A translation of the scholia of bar Hebraeus to the book of Exodus, with critical notes. *Not yet published.*

GREEN, F.

Immunity technique applied to the intergraftability of plants. (Read at the meeting of the Royal Society of Canada, May, 1925.)

GREEN, F., *joint author, see* TAIT, JOHN *and* GREEN, F.

The spindle-cells in relation to coagulation of frog's blood.

GURD, FRASER B.

Infection, immunity and inflammation. St. Louis, C. V. Mosby Co., 1924. 329 pp.

HAMILTON, LIONEL H.

Balancing the ration. (Farmer's guide. Vol. VI, p. Feb., 1925.)

Fundamentals in stock feeding. (Farmer's guide. Vol. VI, p. 3-15, Jan. 21, 1925.)

Prospects of the sheep industry. (Jour. of agri. Vol. 28, p. 147-157, Apr., 1925.)

Valuing farm feeds. (Farmer's guide. Vol. VI, p. 2, 16, Mar. 4, 1925.)

What the bacon hog competition taught. (Jour. of agri. Vol. 28, p. 80, Dec., 1924.)

HAMILTON, W. F., *joint author, see* WAUGH, THEO. R. *and* HAMILTON, W. F.

A study of some cases of purpura hemorrhagica.

HARRISON, F. C.

A practical course for farmers' sons. (Jour. of agri. Vol. 28, p. 3, July, 1924.)

HATCHER, W. H. *and* HOLDEN, G. W.

Hydrogen peroxide as an oxidising agent in acid solution. II. (Roy. Soc. Can. trans. Ser. III, Vol. XVIII, sec. 3, p. 231-246, May, 1924.)

HEIMPEL, L. G.

A.E. means agricultural efficiency. (Agri. eng. jour. Vol. 6, p. 51, Mar. 1, 1925.)

Agricultural engineering and its objectives. (Jour. of agri. Vol. 28, p. 167, May 25, 1925.)

Before fall plowing—summer cultivation. (Jour. of agri. Vol. 28, p. 33, Sept., 1924.)

Conclusions from the plowing matches. (Jour. of agri. Vol. 28, p. 24-25, Dec., 1924.)

Education value of the radio. (Can. countryman. Vol. XIII, p. 47, Jan. 10, 1925.)

Electric light for the farm. (Farmer's guide. Vol. V, p. 324, Sept. 17, 1924.)

The farm engineering short course. (Jour. of agri. Vol. 28, p. 101, Jan., 1925.)

Garnering the winter harvest. (Can. countryman. Vol. XIV, p. 258-9, Feb. 21, 1925.)

The harvest of the maple grove. (Jour. of agri. Vol. 28, p. 127, Mar., 1925.)

Hot water on tap in the farm kitchen. (Jour. of agri. Vol. 28, p. 69, Nov., 1924.)

Housing the dairy herd. (Can. countryman. Vol. XIV, p. 6, 39, Apr. 18, 1925.)

How radio waves are employed. (Can. countryman. Vol. XIII, p. 1447, Oct. 25, 1924.)

How to make a good crystal set. (Can. countryman. Vol. XIV, p. 248, Feb. 21, 1925.)

Inexpensive non-freezing solutions. (Jour. of agri. Vol. 28, p. 115, Feb., 1925.)

Radio, the latest farm convenience. (Can. countryman. Vol. XIII, p. 1126, Aug. 23, 1924.)

Slippage in belt drives. (Can. countryman. Vol. XIV, p. 90, Jan. 24, 1925.)

Storing the farm ice supply. (Jour. of agri. Vol. 28, p. 111, Feb., 1925.)

The use and abuse of concrete. (Can. countryman. Vol. XIV, p. 637, 666, May 2, 1925.)

HEIMPEL, L. G., *and* NORTH, F. G.

The drainage of farm lands. (Quebec. Dept. of agri. Bull. 89, 62 pp.)

HENDERSON, A. T.

The successful treatment of asthma and related conditions. (Med. clinics of N.A. Vol. VII, p. 1715-1738, May, 1924.)

HENDERSON, JEAN T.

The gribble: a study of the distribution factors and life-history of *Limnoria lignorum* at St. Andrews, N.B. (Contrib. to Can. biol. N.S. Vol. II, pt. 1, p. 309-325, 1924.)

HENRY, CHARLES K. P. *and* RHEA, LAWRENCE J.

A case of cerebral tumor. (Can. med. assn. jour. Vol. XIV, p. 734, Aug., 1924.)

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MACDONALD COLLEGE

The attendance in all three schools for the academic year has been very good. The School for Teachers had only three less than the record attendance of the previous year. The School of Household Science had all its classes well filled. In the School of Agriculture there was an increased attendance.

A large number of students registered for graduate courses, and some useful research work was done. We desire to thank Mr. Walter Stewart, of the W. C. Macdonald Reg'd. Inc., the Quebec Provincial Government, and Dr. Milton Hersey, for the graduate scholarships they have so generously donated.

The wastage of students in the School of Agriculture is not very large. Failure to pass the various tests usually results in the student returning to the farm. Very few of our graduates drift into other professions. A careful survey of all the graduates shows that one has entered dentistry, one the ministry, and one has become a lawyer.

As a result of the visit of Professor Lochhead to England, we have made a co-operative arrangement with the immigration department of the Canadian Pacific Railway for bringing English public school boys to Canada for courses at Macdonald College and farm apprenticeship, and the Canadian Pacific Railway and Macdonald College have appointed a committee to deal with all matters in this connection. Enquiries are first made in England as to whether the prospective settler really desires to farm in Canada, and to obtain an agricultural education of a type that will fit him for farm work, viz., the winter course in agriculture, for which a fair general education is required; or a course of a more advanced type, provided his educational attainment has sufficient foundation for him to take the courses at Macdonald College leading to a degree.

The candidates are advised to arrive in Canada as early in March as possible. On arrival, if they cannot be placed at once on a selected farm, they are housed and cared for in the men's residence at Macdonald College. A list of selected farms, known by the committee, or selected by it, is kept and boys will be placed on these farms, and visited and looked after from time to time by officials of the C.P.R. and Macdonald College. All boys will be expected to keep full notes in the form of a diary of the work they do from day to day, and required to write this up properly and to send a copy of it monthly to a member of the committee designated by it. After the season's work, (which, in the case of boys who are going in for the winter course, will extend until the end of October), the boy will enter Macdonald College winter course in agriculture, and remain there taking this course until about the 15th March following. At the expiration of this period he will be placed again on a selected farm, and follow the procedure as mentioned above, returning again to Macdonald College in the following November, when he will have an opportunity of selecting such subjects as he may desire to specialise in, such as animal husbandry, farm crops, horticulture, poultry, agricultural engineering; or a combination of two, three, or more of the above. At the end of this course he is considered able to look after himself. The candidates who have the necessary academic foundation will follow somewhat the same procedure; they will arrive in Canada early in March, will be placed on a selected farm, but will enter the first year of the course of Macdonald College at the end of September, remaining at the college until the end of the scholastic year in April, when they will go back to a farm, returning in the fall to Macdonald College for their second, third and fourth years. In this way a student will be enabled to obtain farm work for four seasons if he so desires.

The School of Agriculture

The work in the various departments of the School of Agriculture, as outlined by the heads of the departments, is as follows:—

Agricultural Engineering

The activities of this department divide themselves under the following heads:—Teaching, research, extension and publicity.

TEACHING.—During the academic year the staff was fully occupied with the teaching of the courses in agricultural engineering outlined in the announcement. Six full term courses were given to students in the four year course. Three courses were given to the winter course in agriculture.

The short course in farm shopwork, gas engines and drainage, which was given for the first time a year ago, was repeated during this year. Twenty-three men attended, all but four of whom were farmers.

Improvements made during the last year in demonstration and laboratory equipment in gas engines, farm machinery, barn and stable equipment and shopwork have made it possible to present courses still more thoroughly than has been possible in the past.

Manual training has been taught to grades VII, VIII, IX and X of the high school two afternoons per week.

RESEARCH.—The following research projects are being carried on in this department:—

1. Experiments to determine the effects of the various gas engine fuels on the rate of dilution of crank case oils. This work has been in progress almost two years.

2. Experiments to determine the suitability of mole drainage in the heavy clay subsoil of the St. Lawrence Valley. These drains can be installed at less than 1/10 the cost of tile drains. They have been successfully used for over two centuries in England and other European coun-

tries, and have been found to be very beneficial in New Zealand. We have no record, however, of any attempts to use them in America. Work is being conducted in this connection on several farms in the neighbourhood of Huntingdon, Que.

3. Experiments to determine comparative amounts of power needed to draw farm implements with sharp points and dull points. This work was commenced during the summer of 1924, and will be continued this year.

4. A great deal of information has been gathered during the last six months to ascertain the percentage of loss from fires due to spontaneous combustion in barns. The farms mutual insurance companies report these losses to be at least twice as great as those caused by lightning. A project to ascertain the conditions causing spontaneous combustion in hay and grain has been planned and it is our intention to commence work on this project this year.

EXTENSION.—A new bulletin entitled *Tile Drainage of Farm Lands* has been written by the staff of this department and placed in the hands of the Provincial Department of Agriculture, for publication.

Professional assistance in the planning and construction of drainage systems, in farm building plans and other engineering problems has been given in a number of cases. A fairly large correspondence of a similar nature was also dealt with.

Agronomy

The activities of the agronomy department are conducted along three main lines: teaching, investigation and extension.

TEACHING.—Teaching involves courses to the winter course, to all undergraduates, to specialists in agronomy and to graduate students. Seven graduate students took major work in agronomy during the past session.

INVESTIGATION.—A large part of the department's activities is devoted to investigations and breeding work with field crops. The time of the

staff during the summer is very largely taken up with this work. The analysis of results, the choice of material, and plans for the following years are made during the winter months. The work is pursued along three lines: in experiments to determine the best methods and practices to be followed in producing farm crops; in the improvement of the several classes of crops by hybridizing and selection; and in research problems.

All the investigational work is of long duration; some of several years; some being continuous. The work outlined in last year's report has been continued. In addition two other problems of special importance have been undertaken. The first of these involves a study of soil heterogeneity and its relation to experimental results. The second involves a study of the effects of rates of seeding oats on the comparison of varieties and strains. The latter has been undertaken through a committee appointed by the Advisory Council of Scientific and Industrial Research.

During the past year an analysis was made of an experiment to determine to what extent commercial fertilizers can be used to replace farm manure in a standard four year rotation of corn, grain, hay and pasture. The results of twelve years experiments to date show that a combination of ten tons of manure and commercial fertilizers maintains the yield as well as an application of twenty tons of farm manure alone. With commercial fertilizers alone there was a marked decrease in yield, and the evidence points in the direction that the use of commercial fertilizers cannot entirely replace the use of farm manure under the conditions of this experiment. Since twelve years represents only three cycles of the rotation, each plot has received treatment only three times. Before the full effect of each treatment is shown the experiment will have to be continued through several more cycles.

EXTENSION.—A part of the time of one member of the staff is devoted to extension work. Banner 44 M.C., the new strain of Banner oats, is being multiplied and disseminated. This is done in co-operation with the Quebec Department of Agriculture. The agronomy department furnishes the Elite Stock Seed, directs the operation of a multiplication farm at Ste. Rosalie, P.Q., and co-operates in the formation of seed centres. The Quebec Department of Agriculture finances the operation of the farm, takes an active part in the organization of seed centres, and encourages the culture of pure seed by conducting field crop competitions. The following outline shows more clearly the plan of dissemination followed:—

1921—Seed grown at Macdonald College.
1922—Seed multiplied at Ste. Rosalie.
1923—Seed further multiplied on a few of the cleanest and best farms at Ste. Rosalie.
1924—Seed distributed to seed centres for further multiplication.
1925—Seed sold in general commerce and used for combined field crop and seed competitions which are held under the auspices of the agricultural societies and farmers' clubs. This spring, for the first time, this variety was offered in commerce. Several thousand bushels were sold to agricultural societies and farmers generally. The demand was much greater than the supply.

The Alaska variety of oats, on account of its earliness and high quality, continues to fill an important need in certain sections of the province. Efforts towards the multiplication of this seed in seed centres, from which it goes to the regular channels of trade, have been continued.

Quebec 28 corn, a variety produced by the ear-to-the-row method, becomes increasingly popular. Apart from its suitability in Quebec, it has done well in Manitoba and Alberta, on account of its earliness and high yield. The de-

mand from these two provinces has, during the past few years, taken all the available supply in Quebec, and efforts are now being directed to produce larger quantities than heretofore.

GENERAL.—The department co-operates closely with the field husbandry branch of the Quebec Department of Agriculture and the Federal Department of Agriculture. In co-operation with these bodies a careful study of the varieties of farm crops in Quebec was made during the past summer. On the basis of this study a list of the superior ones was placed in the hands of all the organizations which play a part in the seed supply of the province.

A further result of this study is the arrangement for a test of the most promising varieties, to be conducted in a uniform manner at all the agricultural colleges and experimental farms in the province. The purpose of this is to provide a systematic means of choosing in an intelligent manner the most suitable varieties. The aim is to arrive at greater unanimity of recommendation and to eliminate all varieties that are unsuited to this province.

Animal Husbandry

ADMINISTRATION.—On account of the fire which destroyed the main storage barn and contents on November 28th, departmental operations have been conducted with some difficulty during the past winter. Notwithstanding, advancement has been made in the live stock equipment during the year, some improvements in land and buildings have been effected while costs and returns compare favorably with those of the preceding year. The cattle herd which was placed under the Dominion Government accreditation system in 1923 was fully accredited on August 23, 1924, having passed all tests throughout the period without a single reaction.

TEACHING.—The regular courses in animal husbandry and farm management were given.

EXTENSION WORK.—The usual amount of regular field work was carried on. It included lectures and conferences at farmers' and breeders' meetings, judging competitions, press articles, advice and assistance to individual farmers.

INVESTIGATION.—During the year data have been reported on the following projects:—

The effect of adding: (1) Protein; and (2) Minerals to a basal ration for sheep.

Dry meal feed for market pigs.

Dried Brewers yeast versus oil meal for milch cows.

Feed cost of milk and butter fat.

Normal growth of dairy cattle.

SPECIAL ACTIVITIES.—A plan for the advanced registration of dairy cattle was submitted to a Dominion Dairy Cattle conference held in Ottawa. The plan was endorsed by the conference, developed in detail by a special committee and finally adopted by the Dominion Department of Agriculture and the breed associations as a means for improving dairy cattle throughout Canada. It is being put into operation in May 1925.

A paper on the Status of Animal Breeding in Canada, was read before the Agricultural Section of the British Association at their meeting in Toronto.

The Presidential address was given at the annual convention of the Canadian Society of Technical Agriculturists.

Bacteriology

The short general course given in the second year and the dairy bacteriology course in the third year have been cancelled, and instead the time previously given in the second and third years has been allotted to a general course in bacteriology offered in the third year, thus giving students a better foundation for their specialists' work in the fourth year in the subjects of soil and animal bacteriology and the bacterial diseases of plants.

These changes were also adapted to the bacteriology given in the school of household science.

Two graduate students have been taking bacteriology.

A number of research problems have been undertaken. Through the Research Council it has been made possible to have one man working on the bacteriology of sea fish. Mr. Sanborn has been investigating the decomposition of cellulose. Other subjects under investigation are the effect of green manures on the activities of Azotobacter and some problems in connection with the canning of food products.

During the year the general routine work has been done in connection with the sanitary control of the water and milk supply of the college.

Botany

The usual undergraduate and short course teaching was carried on with the same departmental staff as for last year. In the graduate teaching eight students took all their work in the department of botany, and four others were taught part time. Of the eight major students three are French-speaking. To accommodate graduate work it is now necessary to arrange for new laboratory facilities in basement rooms of the biology building.

Research was undertaken in the following problems (with findings summarized herein) :—

1. BLACK-DOT DISEASE OF POTATO. The organism causing the disease in Quebec is determined as *Colletotrichum atramentarium*. Cultures from England, France, Germany, Ohio, Pennsylvania, West Virginia and New Brunswick were found to be the same as that from Quebec.

The organism attacks potato plants usually after blossoming and during adverse environmental conditions such as drought and poor drainage. Young plants are attacked when environmental conditions are unsuitable to good plant growth. Affected plants die down about three weeks earlier than healthy plants and the

yield is reduced. As a result of one year's tests, Green Mountain and Delaware appear to be more susceptible than Cobbler and Beauty of Hebron.

Seed tuber treatment is recommended.

2. OAT SMUT STUDIES. Mr. Coulson has carried on work concerning date of planting and size of seed in relation to infection with smut. It was found that the very early and late plantings gave the lowest smut infections. The below table summarizes the results obtained with large and small grain:—

RELATION OF SIZE OF OAT SEED TO INFECTION WITH SMUT
SUMMARY OF 1924 RESULTS

A.—Field Tests—with Ustilago levis (K. & S.) Mag. Five replications for each test.

Variety	Condition of grain.	Wt. per 100 seeds in grams.		Per cent infection—by plants.	
		Large.	Small.	Large.	Small.
Avena sativa var. Banner 4707	De-hulled	2.94	1.44	19.11	35.46
Avena sativa var. Banner 4707	Hulled	3.97	1.66	2.01	1.75
Avena sativa var. Alaska	De-hulled	2.99	1.40	10.95	40.73
Avena nuda var. Liberty 0-480	Hull-less	3.17	1.41	40.84	66.14

B.—Greenhouse Tests with Ustilago avenea—(Pers.) Jense.

Avena nuda var. Liberty O-480	Hull-less	....	....	32.1	54.84
Avena nuda var. Liberty 0-480	Hull-less	....	....	2.00	10.10
Avena nuda var. Liberty 0-480	Hull-less	....	....	36.32	46.70
Avena nuda var. Liberty 0-480	Hull-less	....	....	86.7	84.00
Avena nuda var. Liberty 0-480	Hull-less	....	....	65.6	76.6
Avena sativa var. Alaska 412	De-hulled	3.30	1.39	19.2	46.0
Avena sativa var. Alaska 412	De-hulled	3.60	1.47	20.0	43.1
Avena sativa var. Banner 4707	De-hulled	2.76	1.40	37.8	85.4
Avena sativa var. Banner 4707	De-hulled	2.53	1.40	62.37	84.5

To obtain high infections the hulls were removed in the case of the hulled varieties (excepting in one case). The hull-less or de-hulled grain was shaken up in a container with the spores of the smut under test until grain was visibly smutted; the grain was then separated by hand into large and small and weighed. The plantings were made at a uniform depth in the soil in the field and in sand in the greenhouse.

The table shows that in all tests except two the infection was greater in the plants grown from the small seeds, in some cases the difference being very striking. In one instance with Banner 4707 (not de-hulled) the infection is very small and practically the same in the case of both large and small seed. One test with Liberty 480 shows a slightly higher infection in the plants from large seed but the infection is very high in both instances.

The above results present a strong argument for the use of the larger grains of an oat variety in planting as a control measure for oat smuts, also the need is apparent for uniformity in size of grain used in resistance tests and all smut work with oats.

3. A continuation of the smut control tests gave among many others the following interesting results with hull-less oats which were artificially inoculated with a mixture of *U. avenae* and *U. levis*.

Treatment	Percentage of smut by culm. count
Check	58.4
Nickel sulphide dust 2 oz. per bu	0.8
Nickel carbonate dust	1.66
Nickel hydrate dust	1.7
Copper carbonate dust	2.1
Nickel hydrate dust	2.5
Uspulun soak	3.4
Semesan dust	6.0
Semesan soak	6.4
Check	55.4

All the treatments materially reduced the smut (e.g. from over 50% to less than 5% in most cases) the remarkable results being those with nickel salt dusts.

4. Stripe or Streak Disease of Tomato. Mr. Vanterpool has continued work on this problem. The disease is found both in greenhouse and field, being especially serious in the former. The view is held in England that this, or a closely similar disease, is of bacterial origin, while in Ontario it is thought to be due to unbalanced soil nutrients. In Quebec it is shown to be a *virus disease* like the mosaic diseases. Infection has repeatedly been obtained by using filtered juice, from diseased plants, in which no bacterial organism is present. In one case *Physalis heterophylla* was shown to be a carrier of the disease, and tobacco has several times been tested with positive results as a carrier.

5. Oat Rusts in Eastern Canada. Mr. Gordon commenced a study of the crown rust and stem rust of oats in Quebec and the Maritime Provinces. This is a very important problem in connection with breeding rust-resistant varieties of oats for Eastern Canada. During this year most attention was paid to crown rust, owing to space requirements in the experimental greenhouses.

Inoculation work has been carried on with 11 cultures of crown rust (*Puccinia coronata*), and 11 cultures of stem rust (*Puccinia graminis avenae*), collected in different localities in Eastern Canada.

Over 50 varieties, or strains, of oats have been inoculated with the eleven cultures of *Puccinia coronata*, with the following results.

The varieties, or strains, mentioned below have shown signs of resistance to some, or all, of the cultures:—

Avena sterilis selection.
Algerian (New Zealand).
Burt.
White Tartar.
White Russian (Minn. 539).
White Russian (C I. 1614).
Green Russian.

Green Russian (Iowa 96).
Green Mountain.

All the varieties being grown at Macdonald College will be tested during the coming season.

There appears to be three biologic forms of *Puccinia coronata* in Eastern Canada, as evidenced by the reaction of *Avena sterilis* selection and White Russian (Minn. 539) to the different cultures.

Three varieties have shown signs of resistance to stem rust (*Puccinia graminis avenae*). These are:—

Richland (C. I. 787).
White Russian (C. I. 1616).
White Russian (Minn. 539).

Preliminary work with the cultures of *Puccinia graminis avenae*, to determine the presence of biologic forms, seems to indicate that they belong to Form II.

6. Cytological Studies of Tobacco Mosaic. Mr. Atwell continued his work on this problem which was undertaken to help solve the question of the cause of the disease.

7. Stimulation by Uspulun. Mr. Smith commenced work on this project in order to ascertain whether the advertised facts regarding stimulation of germination and growth are reliable.

8. Alternaria disease of potato in Quebec. Mr. Gagnon is continuing this problem, which was rendered difficult this year by the scarcity of the disease as compared with the previous year. Further work will be done during the summer of 1925.

9. Mushroom Diseases. Mr. Lachaine and Mr. Gagnon are investigating mushroom troubles which develop at Lachine in beds belonging to Mr. Neuville. A mite appears to be doing most of the damage, although bacteria following mite injury may also be a factor. The problem is to devise control methods since ordinary disinfectants do not seem to be effective. Deformity of the mushrooms in one of the beds was found to be

due to a *Mycogone* for which formaldehyde disinfection is recommended.

10. STUDIES ON BEAN ANTHRACNOSE. Mr. Harrison undertook this problem to determine what physiological species of *Colletotrichum lindemuthianum* were present in Eastern Canada and to ascertain what bean varieties, if any, were resistant to those strains. Fourteen cultures were secured, two from New Brunswick, four from Ontario and eight from Quebec, and these compared with five cultures of J. G. Leach of Minnesota and one from Cornell. Greenhouse inoculations were made on 67 varieties of beans grown in Canada and 7 varieties that Leach uses as differential hosts.

As a result of the inoculations on the differential hosts it appears that there are 4 strains in E. Canada, one of which does not fit in with Leach's. These all come under the strain that Barrus has named *alpha*. The cultures have been tested also for differences on media with very baffling results. All varieties of beans except Well's Red Kidney were susceptible to some or all of the cultures used. Those resistant to the Canadian cultures isolated were Davis White Wax, New White Selected Green Pod, Yellow Six Weeks and Fordhook Favorite.

That this work should be extended seems evident for results from various experimental stations would show that the *beta* strain is also present in Canada though it apparently is not so prevalent as the *alpha*.

11. A NEW DISEASE OF BEANS IN CANADA. Mr. Harrison discovered on bean pods from Annapolis County, N.S., lesions looking remarkably like anthracnose but caused by *Phyllosticta phaseolina*. In culture the general growth and spore masses similate *G. lindemuthianum*, but of course pycnidia are developed. Infection tests showed that the organism attacks flowers, stems and leaves in order of severity as they are named on all varieties used. Numerous reisolations

were made. In culture the pycnidia are numerous, thin walled, forcing the spores out on the surface in pinkish masses. The spores average 6.48 x 2.62 u. The organism has been studied on various carbon sources and in triangulation tests to determine the nutrient requirements.

12. STUDIES ON PHYTOPHTHORA INFESTANS. Abundance of diseased material made it worth while for Mr. Angell to carry on cultural studies in order to ascertain whether oospores were formed since if they are they become an important factor in carrying the organism over winter. Oospore-like bodies were formed constantly on certain media (e.g. cornmeal agar) but none could be germinated after repeated trials so that for the present they must be regarded as chlamdospores.

13. STUDIES ON HOLLYHOCK RUST. Mr. Hill studied the germination of *Puccinia malvacearum* to find out what percentage of teliospores are able to withstand our winter and cause infection on hollyhock in spring. Approximately 75% had germinated before winter. Of the remainder 12% were viable on March 26th and successful inoculation of hollyhock plants in the greenhouse was obtained. It would therefore appear that most infection of young plants occurs in the autumn.

14. MOULDY SILAGE. Mr. Ward made cultural studies of mouldy corn silage which had apparently caused sickness in cattle. Two organisms were commonly present:—A *Fusarium* and *Bacillus prodigiosus*. Time did not allow of chemical analysis for toxic products nor for testing as feed. Generally speaking, mouldy silage is better avoided than used as feed.

Work will continue on several of these problems, inasmuch as they require several years for complete elucidation.

Chemistry

Instruction has been given as usual to students of the winter course, all four years of the

undergraduate course in agriculture, the junior and senior classes in the B.H.S. degree course, the junior and senior classes in institutional administration and the homemaker class, as well as to graduate students.

Mr. W. A. DeLong, who received the degree of M.Sc. in May, 1924, has been added to the staff of the department as assistant. Mr. L. Beaudet, upon whom the same degree was conferred, at the same time, has been appointed assistant chemist in the Provincial Laboratories at St. Hyacinthe. There have been four graduate students registered this year with chemistry as a major subject, and five with that subject as a minor. Two undergraduates of the third year are taking a selective course with chemistry and bacteriology as majors.

Work on the analysis of the soils of the rotation farms has been continued by Dr. McCarthy. Mr. DeLong has assisted in an investigation into the nature of solutions of basic lead acetate, such as are used in the analysis of saccharine products, which has been in progress for some years and is not yet completed. Some additional work has been done upon malic acid, and a paper embodying results obtained in the preparation of this acid from maple sugar sand was presented at the meeting of the British Association for the advancement of Science. Graduate students have worked upon the absorption of phosphates by soils and "turbidity tests" for purity of butter fat.

Mr. DeLong has made contributions to *Scientific Agriculture* and the *Quebec Journal of Agriculture and Horticulture*, and was awarded second prize in a competition for essays on the rational and profitable use of nitrate of soda held under the auspices of the Canadian Society of Technical Agriculturists.

Entomology and Zoology

TEACHING.—This department gives seventeen courses to undergraduates in agriculture, eight

to graduates, two in the school of household science, and one to the winter course in agriculture. Several of these courses are double courses extending over the two terms of the session. As a consequence the time of the staff must necessarily be devoted completely to teaching during the session.

There were eight graduate students working in entomology this year, of whom three will proceed to their degree, while the others will complete their work next year.

RESEARCH.—For several years we have been studying the life-history, habits and methods of control of the onion maggot, the most serious pest of truck crops in the Montreal district. This work has proceeded slowly owing to inability to place a man in the field to devote his entire time to the problem. A grant in aid of this work has recently been received from the Research Council, the services of Mr. K. Stewart, a graduate student, have been retained for the work, and it is hoped to complete the study during the summer of 1925.

Studies on the habits and control of the cabbage maggot, the carrot rust fly and the beet leaf miner are also in progress.

During the past summer studies on the protozoa found in the latex of plants have been continued. A preliminary note on the subject has been published in the last report of the Quebec Society for the Protection of Plants. A paper on the subject was read before the Toronto meeting of the British Association for the Advancement of Science, and will appear shortly in the *Journal of Parasitology*.

In the graduate school, Mr. A. D. Baker has completed an investigation on the genitalia of the Pentatomidae, a group of insects which includes both injurious and beneficial forms; Mr. A. R. Graham is making a similar study of the Ambrosia beetles, a group of injurious forest insects; Mr. T. Armstrong has reported on certain aspects

of onion maggot biology and control; Mr. L. Daviault has studied the digestive system of crickets, and Mr. L. Briand is working on the cabbage maggot.

Horticulture

INSTRUCTION.—Courses in all four years leading to the B.S.A. degree have been given, as well as lectures and practical work to the students taking the winter course.

SHORT COURSES.—Short courses in this department were held as follows:—

Beekeeping	January 13th to 16th
Vegetable and Fruit Culture, Home Gardening	January 20th to 23rd
Box Packing of Apples	March 3rd to 6th
	March 10th to 13th

The box packing of apples school was an innovation, and was specially featured. The department was obliged to repeat the course in order to accommodate all the applicants. It is desired to acknowledge the hearty co-operation in this packing school of the Quebec Department of Agriculture through Mr. J. H. Lavoie, Chief of the Horticultural Service, and of the Dominion Department of Agriculture through Mr. G. E. McIntosh, Fruit Commissioner. Equipment was furnished, as well as members of the dominion and provincial staffs to assist in making the school a success. Box packing of apples offers special inducements to the Quebec fruit grower in marketing his crop to the best advantage.

The courses were all of a practical nature and the college staff was assisted by a number of speakers including Mr. W. T. Macoun, Dominion Horticulturist, Messrs. T. F. Ritchie, C. B. Gooderham, C. E. Petch, E. B. Luke, John A. McKinnon, R. H. Willis and H. Selwyn. This department also assisted in a course of lectures intended to benefit golf associations in the maintenance of their fairways and greens.

MANAGEMENT.—The season of 1924 was favorable for crop production, although it was later than the average. The crop of apples was 55%

of the previous season's and averaged $5.15 per barrel. The quantity of produce and returns is indicated in the following table:—

455 bbls.	Apples	$2,346.87
8,498 boxes	Strawberries	1,087.04
2,850 "	Raspberries	861.70
2,746 quarts	Currants and Gooseberries	304.08
2,612 lbs.	Asparagus	582.50
	Vegetables (total)	4,146.93
	Honey	365.80
	Seed	651.40
	Greenhouse	5,525.00

EXPERIMENTAL.—A number of lines of investigation are being continued, including the use of nitrate of soda in the orchard, cover crops, spraying for the control of both insects and diseases of fruits and vegetables, fruit bud formation, fertilizers for strawberries and vegetables, greening and sprouting potatoes for early production, breeding of strawberries and cane fruits, fertilizers for the use of lawns, etc.

A thinning experiment with Transparent apples was conducted and resulted in a 29% increase of size, where the apples were thinned to approximately 8 inches apart. This also eliminated practically all the culls and low grade fruit and the resultant crop was very much superior to the unthinned trees, which during a period of large crop and low prices were almost unsaleable. The fruit from the thinned trees commanded a ready sale at all times, and, on account of the increase in size of the apples, the total yield was not materially decreased. The cost of thinning was approximately 25c per barrel of harvested apples and the price was practically doubled on account of the quality and increased size. It is strongly recommended that all fruit growers give thinning a trial and note the results. When trees are bearing heavily, particularly Transparent, Duchess, Wealthy, McIntosh, etc., thin to one apple per spur and leave the apples not closer than 6 inches apart. Thinning should be done towards the end of June and early in July when the apples are about one inch in diameter.

During the season of 1924, the irrigation of strawberry plants, the crop from which was harvested during an excessively dry period in June and July, made a difference between almost a total failure and a very high quality crop, running 6,000 to 7,000 boxes per acre. Approximately 4 inches of water was applied at intervals of 3 to 4 days during the harvest season. Where the plants were not irrigated the berries were small, seedy and of poor quality, and of a very low yield per acre. Irrigation is strongly recommended as a profitable operation for strawberry production and for many vegetable crops where high quality and production are desired.

GENERAL.—A quantity of asparagus and raspberry plants were distributed during the spring to farm homes through the province where these crops had not been previously grown. Farmers are taking increasing interest in the farm garden and are finding it a valuable asset to the home and a source of revenue in the sale of surplus produce.

Notes on various horticultural subjects have been added to the list of those reported a year ago, and these are freely circulated:—

21. The Perennial Border.
22. Ornamental Shrubs.
23. A list of Perennials.
24. The Establishment of an orchard.
25. The Management of an orchard.
26. The apple spray calendar.

Members of the staff of the department have given addresses or read papers before a number of provincial horticultural societies; also before the following societies:—

Quebec Pomological and Fruit Growing Society (Annual and summer meetings),

Macdonald Branch, Canadian Society of Technical Agriculturists,

Ontario Fruit Growers' Association,

Northumberland and Durham County Fruit Growers' Association,

Kiwanis Club, Montreal,
Montreal Section of the Association of Canadian Advertisers,
Montreal Beekeepers' Association.

In addition many enquiries have been answered by correspondence and articles have been written for the press and magazines.

Physics

Courses of lectures and laboratory work have been given to the B.S.A. first, second and third years, the winter course, and the graduate students of the School of Agriculture, and to the senior B.H.S., senior administration, junior administration, homemaker and short course students of the School of Household Science.

No research results have as yet been published. An investigation is being made into the surface tension of certain colloid solutions.

Poultry Husbandry

The past year has shown continued progress in the general departmental work. The breeding stock went into the pens in better condition than has been the case for a few years past. This was partly due to the treatment given to eliminate all weak stock and add more vigour to the remaining stock. The 1924 pullet stock was put into the pens early in the fall season and handled to get maximum fall and winter egg production. The results in eggs produced by the three breeds, Barred Plymouth Rocks, Single Comb Rhode Island Reds, and Single Comb White Leghorns, were most gratifying. Six hundred and seventy-five pullets, (420 Barred Plymouth Rocks, 150 Single Comb Rhode Island Reds, and 105 Single Comb White Leghorns) were under the Federal Record of Performance production work. One pen of twelve Single Comb Rhode Island Red pullets is entered in the Canadian Egg Laying Contest at Ottawa under registration work. The productions of these females have so far been highly satisfactory. During the winter months

the Macdonald pen stood second highest pen in eighty pens and led over all other general purpose breed pens.

The demand for bred-to-lay stock is ever increasing. General farmers are gradually enlarging the flocks of poultry kept on the farms. During the past few years poultry produce prices have held up proportionately better than prices of many other classes of farm produce. The demand for poultry produce is keen, and undoubtedly will remain so for years to come, as at present Canadian people are eating more eggs than the people of the United States. The Canadian production of eggs is far below that which is needed for home consumption, therefore necessitating the importation of large quantities of eggs from foreign countries.

INVESTIGATIONAL WORK.—A number of research projects are under study at present, only one having been completed during the past year.

1. A statistical study of mortality in chicks from pullet, yearling and two-year-old dams.

2. A biometrical study of the progeny test.

3. Seasonal variation in egg production in the bred-to-lay Single Comb Rhode Island Red Fowl.

4. Seasonal variation in egg production in the bred-to-lay Single Comb White Leghorn Fowl.

5. The feed cost of rearing chickens to the broiler stage.

6. The feed cost of rearing pullets to the laying stage.

7. The cost of egg production under commercial conditions in the Province of Quebec.

8. Ventilation problems in the poultry laying house.

9. The comparative value of different types of house construction and ventilation system for Quebec conditions.

10. The comparative value of daily to weekly weighing of hen's eggs to obtain accurate average yearly egg weights for individual hens.

PROJECT COMPLETED.—*The seasonal variation in egg production in the Barred Plymouth Rock fowl.* The following summary presents the findings in this study:—

SUMMARY.—In studying the seasonal variation in egg production in Barred Plymouth Rock fowl for the first four years of the Canadian Egg Laying Contest at Ottawa, Canada, when figured on the four-weekly basis, the following results were found:—

Correlations between the egg production of the four seasons, (winter, spring, summer and fall), and yearly egg yield were found to be positive and significant in all cases.

The correlation coefficients for the four years by individual seasons were as follows:—

YEAR 1919-20 (159 Birds)

1.	Winter versus yearly egg yield	.6180 = .0490
2.	Spring " "	.7218 = .0256
3.	Summer " "	.8879 = .0112
4.	Fall " "	.6398 = .0315

YEAR 1920-21 (147 Birds)

5.	Winter versus yearly egg yield	.6402 = .0328
6.	Spring " "	.6196 = .0342
7.	Summer " "	.6936 = .0292
8.	Fall " "	.5320 = .0404

YEAR 1921-22 (208 Birds)

9.	Winter versus yearly egg yield	.6764 = .0254
10.	Spring " "	.6728 = .0256
11.	Summer " "	.6961 = .0241
12.	Fall " "	.6095 = .0293

YEAR 1922-23 (220 Birds)

13.	Winter versus yearly egg yield	.5036 = .0339
14.	Spring " "	.6011 = .0290
15.	Summer " "	.5874 = .0297
16.	Fall " "	.5327 = .0325

ALL FOUR YEARS COMBINED (734 Birds)

17.	Winter versus yearly egg yield	.6468 = .0148
18.	Spring " "	.6650 = .0159
19.	Summer " "	.7239 = .0118
20.	Fall " "	.6024 = .0158

Seasonal egg production (when based on four-weekly periods rather than monthly periods), of Barred Plymouth Rock fowl under Canadian conditions at Ottawa is directly correlated with yearly egg yield.

The summer season is apparently the best season from which to calculate approximate annual production in Barred Plymouth Rock fowl not under continuous trap-nest work. The possibilities of getting a large percentage of the medium to low producers would be better.

The mean egg production in the four years under study showed a decided increase advancing from 143.235=2.487 to 178.915=2.261, with a four-weekly average of 163.204=1.193.

LITERATURE.—The increased demand for information on various phases of poultry production has been met by arranging a number of individual treatises on the more important phases of work in mimeograph form to be used as enclosures with correspondence. Such material was also used to good advantage in the regular class room work as well as with the winter short course. Blue prints of improved types of poultry houses were also distributed to prospective poultry house builders. Such material is greatly appreciated by those receiving it.

EDUCATIONAL WORK.—The regular teaching work has been carried on during the past year in the School of Agriculture, including a general poultry course to the second year and the specialized courses to the third and fourth year students. Three students have completed the requirements of the fourth year poultry selective course and four students have completed the third year selective requirements. Special students were also given theoretical as well as practical instruction during the periods which they attended the courses. At the present time Macdonald College is offering the highly specialized work in poultry husbandry leading to the development of poultry specialists.

EXTENSION WORK.—The policy of extension work in poultry husbandry has been changed somewhat in order that more definite results may be shown in return for the money and effort spent in the field. During the past year most of

the field work was done in the form of flock selection. The following report of the flock selection work is self-explanatory.

A COMMUNITY FLOCK IMPROVEMENT PROJECT. —The production of poultry product (eggs and meat), under improved conditions of management on the farm is now being recognized as a profitable sideline. A very noticeable change of thought towards poultry is now being shown by the general farmer. Our poultry short course, Jan. 26-30, had in attendance a proportionately large number of general farmers. During the last two years the general farming public of such sections of country as the Howick-Ormstown section, Lachute, Vaudreuil and Soulanges, have definitely asked for help in their poultry problems. At the present time Brome county farmers through Mr. McClintock are starting flock improvement work. Do such instances not show that farmers in those sections, and especially a section like the Howick-Ormstown, must realize that there is money to be made from poultry production on the farm?

In view of the above existing circumstances presenting themselves the Macdonald College poultry department in planning their extension policy decided to concentrate their efforts in extension work on definite areas in order that more work could be done for the time and money spent, and further that more impressive results could be shown from the work done. The aim in mind is the improvement of conditions in an entire community; to develop poultry conditions in that community so that it may later be known for a specific class of poultry products as being produced there.

The following comparative table gives the total number of hens in each district, the number and percentage of good layers, medium producers and culls.

District	No. of Hens	%	Good Layers	%	Medium Layers	%	No. of Culls	%
Ormstown	4,942	100	1,630	32.9	1,925	39.7	1,347	27.4
Lachute	572	100	108	18.7	298	51.6	172	29.7
Vaudreuil	2,521	100	583	23.1	1,083	43.0	855	33.9
Total	8,035	100	2,321	28.9	3,306	41.6	2,374	29.5

There was practically no variation in the breed or breeds kept in these three districts. A total of 187 flocks were culled and of this number 72 were mixed or mongrel flocks, although some very good producers were noticed in these flocks. There were 63 flocks of Barred Plymouth Rocks, 23 flocks of Rhode Island Reds and 13 flocks where two or more breeds were kept, 7 flocks of White Wyandottes, 5 flocks of White Leghorns, 3 flocks of White Plymouth Rocks, and 1 flock each of Buff Plymouth Rocks and Buff Orpingtons.

From the foregoing report the factor of organization of effort is self-explanatory in economising in the cost of such work as poultry flock selection and culling. It also brings out the facts that there is a need for constructive extension work.

Another branch of extension work carried on was that of aiding in the organization and building up a community poultry association in the town of Baie d'Urfe, Que. A programme of lectures and demonstrations was arranged for and put on by members of the poultry department staff. Such work as this, which is community organization, is worthy of assistance.

RECORD OF PERFORMANCE BREEDERS' ASSOCIATION OF QUEBEC.—The R.O.P. Breeders' Association of Quebec organization was also another development through the efforts of the extension service of this department. The extension poultry husbandman, Mr. G. L. Landon, aided by help from the Federal Live Stock Branch, Poultry Division, organized the association to promote better production work in the province, and especially the production of highly bred production-poultry which is under the Record of Performance Egg Laying work. Such an organization

will be the means of bringing before the public the class of stock being produced in this province and offered for sale as foundation breeding stock.

Veterinary Service

INSTRUCTION.—The courses in veterinary science consist of lectures and laboratory work to the third and fourth year students in animal husbandry and poultry. Lectures were also given to the winter course in agriculture.

EXTENSION.—Two farmers' clubs were addressed on the subjects of *Sterility* and *Abortion.*

A lecture upon *Diagnosing the Trouble,* was given to the poultry short course. Demonstrations were also given of postmorten findings in diseases of poultry.

PROFESSIONAL.—Besides the professional duties in connection with the institution, herds have been examined where the study of breeding diseases of dairy cattle might be carried on.

EXPERIMENTAL.—The treatment of pyogenic infections by a colloidal suspension has been continued. A report of this work will appear in an early issue of the *Cornell Veterinarian.*

The milk supply of Ste. Anne de Bellevue was examined, qualitatively and bacteriologically. It was found that some of the herds were infected with tuberculosis. This was determined primarily in the laboratory and checked later by tuberculin test of two of the herds involved.

The School for Teachers

The registration in the School for Teachers was again very large, the numbers being as follows:—

Intermediate Class	169
Elementary Class (First Short Course)	27
Elementary Class (Second Short Course)	58
Kindergarten Directors Course	1
	255

This number is only three less than the number in attendance last year, but it must be noted

that the second short course, which trains teachers for rural schools, is the largest there has ever been.

The number in the intermediate class is so large that the average section for practical classes contains 56. In the United States, 56 is the largest number in a single section in any of the private or state normal schools, as shown by a recent bulletin of the United States Bureau of Education.

For practice teaching purposes this number was so large that it has been necessary for Mr. Lockhart to accompany the dean to Montreal for the purpose of supervising practice teaching there. These large numbers caused an increased amount of work to devolve upon each member of the staff both as regards teaching, correction of exercises and supervision of lessons. Practice teaching has been obtained in Macdonald High School and in the Protestant schools of Montreal. Demonstrations in methods of handling several grades in one room have been provided for rural teachers by one of the special teachers in Macdonald High School, who has had actual experience of this kind of work in the province. Demonstrations on the preparation of hot lunches for rural teachers have also been given.

A sergeant instructor was sent by the Department of Militia and Defence to give a cadet corps course to the sixteen male students who are preparing for their certificate grade A, or a cadet corps instructor's certificate.

During the year a system of student-teacher exchange has been arranged with the National Committee for the Training of Teachers in Scotland. This exchange will commence in the college year 1925-26. The student coming to McGill University will be an honours graduate in arts or science and probably also in education. He will either take graduate courses in the Faculty of Graduate Studies and Research, or make a special study of education in the Province of Quebec, in which case he will be required to write

a detailed report of the work. It is expected that the Scottish student selected for this exchange will, in addition to his private study, undertake teaching as arranged by the dean of the school for teachers.

The student sent from McGill to Scotland will be a bachelor or master of arts or a bachelor of science who will proceed to either Edinburgh or Glasgow University and either study for a higher degree, or make a detailed study of Scottish education.

It is a matter of congratulation that McGill University has been selected by the Scotch National Committee for the inauguration of this reciprocal exchange of student-teachers, McGill University being selected as the Canadian centre. Teachers' College, Columbia University, New York, is the University selected in the United States, and the scheme will be extended between Scotland and New Zealand and Australia in future years.

The only change in the staff of the school for teachers this year was the appointment of Mr. M. H. Howitt, B.S.A., as lecturer in nature study to replace Mr. J. E. McOuat, who accepted the position of principal of the intermediate school at Kenogami, P.Q.

As in past years the school for teachers has conducted classes for kindergarten assistants in Belmont School, Montreal.

The School of Household Science

REGISTRATION.—One hundred and twelve students have registered in the School of Household Science during the year. These have been enrolled in the various courses as follows:—

B.H.S. Course:	
Fourth year	6
Third year	1
Institutional administration course:	
Second year	17
First year	21
Homemaker (one year)	30
Three months' courses	34
Special student	1
Student workers	2
	112

Other courses given:—In the School for Teachers:—In Sewing, two periods weekly from September to January; one period from January to June. In the Macdonald High School:—Grades VII-X inclusive; two periods weekly throughout the year. Thirty-nine pupils have attended this year. Instruction has been given in elementary cookery, laundry work and housewifery.

Regular work in all classes has been carried on throughout the year and the general standard of work has been equally high, and in some respects superior, to that of other years.

Senior students in dietetics find this branch of their work offering a constantly widening field of interest due to the great impetus recent discoveries have given to the study of dietotherapy and the consequent emphasis placed on the work of the dietitian in hospital treatment.

B.H.S. students have continued investigational work, begun by previous classes, on problems connected with various brands of food, and with food preparation. Time is too short to permit of great attainments, but eventually it is hoped to have something of interest to contribute to the general fund of knowledge available.

As a result of experiments, carried out last year, with types of glass jars for home canning of fruits and vegetables, and the report and suggestions submitted to manufacturers, an improved type of jar has been developed and is now on the market.

Institutional administration classes have catered for various luncheons, teas, etc., both within the college and for outside associations. At Christmas a tea, in aid of the needy in Montreal, and managed entirely by the students, enabled them to send a substantial sum to various charities.

The work in laundry and housewifery is being expanded and developed, and satisfactory progress has been shown.

In the extension department, Miss Roach, who was in charge for several years, resigned in June, and was succeeded by Miss Jarvis, who took up her duties in October. During the year short courses have been given at various centres in dressmaking, millinery and cookery, as follows:—9 courses of one day each; 5 courses of two to four days each. Miss Poole conducted a ten days' course in dressmaking and cookery for the Imperiod Order Daughters of the Empire at Quebec City in March.

Other work carried on by Miss Jarvis and Miss Poole consisted of:—67 meetings attended and addressed; 57 demonstrations given in cookery, dressmaking and home nursing; 11 fairs attended and judged at; two day convention held in Bonaventure County. These visits necessitated travelling over the province to the extent of approximately 11,377 miles.

A convention of all the women's institutes of the province was held at the college, June 9th to 11th, attended by about one hundred delegates.

F. C. HARRISON,

Principal.

ROYAL VICTORIA COLLEGE

STAFF.—To the great regret of the Staff and of the Resident and Non-Resident students the Warden, being in ill-health, was recommended to take a rest during this Session, and sailed for Europe in the middle of November. Her place was taken by Mrs. C. G. Garside, a graduate of Newnham College, Cambridge. Fortunately good reports are received of the health of Miss Hurlbatt, who is looking forward to returning to her duties in September.

During the Session, Mrs. Furness, formerly Mlle. Touren, Assistant Professor of French, formerly in residence, has been awarded the Palms of the Academie de France in recognition of her services to Education; this honour is felt to be richly deserved as she has given several years of devoted service to the College as well as to the University.

Miss Joan Foster has completed her M.A. Thesis which has been highly commended by the History Department. She has been awarded one of the Moyse Travelling Scholarships, and hopes, at the beginning of the next Session, to take up residence at Oxford and work for the M.A. degree of that University.

LIBRARY.—The Library has continued to be largely used by the women students and has afforded, it is hoped, some relief to the Redpath Library and Reading Room. The additions made during the Session have been much appreciated.

STUDENTS.—Two hundred and sixty-one Undergraduates, of whom forty-six were in the Fourth Year, forty-five in the Third, seventy-two in the Second and ninety-eight in the First, and forty-three Partial Students, were registered in the College. Of these, two withdrew for personal reasons, two changed to Partial courses as they found the full course too heavy for them, and three failed to pass the January examinations.

Of the forty-six students in the Fourth Year twelve obtained first class honours, ten second, one third and seventeen the ordinary degree. Miss Jean Banford obtained the Henry Chapman Gold Medal for Classics, Miss Selma Carl the Gold Medal for Modern Languages, Miss Laura Chalk the Anne Molson Gold Medal for Mathematics, Miss Jean Gurd the Shakespeare Gold Medal and Miss Mildred Baker a Special Certificate for Ordinary Degree work and also a prize of $50.

Of the fifteen women registered in the Faculty of Graduate Studies and Research nine were former students of the College and graduates of McGill. Miss W. Kydd who has for the last year held the Caroline Wirschoeffer Fellowship has been awarded the Strawbridge Fellowship and will continue another year at Bryn Mawr and will be the only Fellow in the Department of Economics and Politics.

RESIDENCE.—The fifty-two study bedrooms have been occupied throughout the Session, there being in residence sixteen of the Fourth Year, eight of the Third, ten of the Second and eighteen of the First, whose homes were in the various provinces of the Dominion and elsewhere, as follows:—P.E.I., 5; New Brunswick, 8; Nova Scotia, 1; Quebec, 14; Ontario, 12; Alberta, 1; Manitoba, 3; British Columbia, 4; U.S.A., 4.

It is impossible to give the numbers of those likely to return for next Session at present as this will largely depend upon the results of the examinations. Already the applications equal the number of expected vacancies, and as the larger number come in after the Matriculation examinations it is evident that many students will have to be refused residence in the College. It is very apparent that the accommodation is quite inadequate to the number of students who would like to avail themselves of the opportunity of coming into residence. It is hoped that the new entrance regulations may lead to the admission of a class of students better able to avail

themselves of the opportunity of study which the College affords. Several of this year's First Year students have been unable properly to avail themselves of the advantages of residence owing to preparation inadequate to the requirements of University life.

STUDENT SOCIETIES.—The various societies have had a year of great activity.

The Delta Sigma Society sent representatives to Toronto to debate with the women students of that University, and Queen's University, Kingston, sent representatives here. Our representatives were successful in both cases.

The Athletic Association sent a Basketball Team to Toronto to meet the teams of Toronto University and Queen's.

The new Music Society has done very good work and has added considerably to the amenities of College life.

The McGill Women Students' Society to which reference was made in the last report, has, during this Session, come into being, and the first President is Miss Frances Stocking.

OTHER USES OF THE COLLEGE.—The College has again afforded the hospitality of its classrooms to the Faculty of Music, and to the Extension Department of the University for classes in French Conversation and in Social Service. Lecture room, office, gymnasium and dining room accommodation have again been afforded throughout the Session to the Department of Physical Education including the use of all these by the School of Physical Education. The latter also made use of the Hall for their public demonstration. The need of a proper gymnasium outside the College building for the School of Physical Education is very evident.

The resources of the building were placed at the disposal of the French Summer School for five weeks as in July 1924, all classes being held in the building and dining-room facilities being afforded to all students, men and women, whether in residence or not. Last July there were in all, includ-

ing the Staff, about 220. The usefulness of such a school is obvious and it is hoped that more Canadians will be able to avail themselves of such an opportunity.

The Alumnae Society has held its usual monthly meetings under the presidency of Miss Mabel Corner, Arts '16, including two evening receptions at one of which an address was given by Miss J. G. Sime, the other being of a musical character. Miss Bosanquet, Secretary of the International Federation of University Women, spoke at the annual meeting which has been recently held. The Alumnae Society, with the help of various members of the University Staff, gave two performances of Diminutive Dramas in the College Hall.

The Hall has again been called into use for a variety of University purposes. The usual Conservatorium Staff Recital and three Orchestral concerts have been held.

The whole building was made use of on Founder's Day for a special Convocation followed by a reception and dance.

Other University lectures included those given under the auspices of the History Department by Professor Pollard, of London University, Sir Richard Lodge, Dean of the Faculty of Arts in Edinburgh University, Professor Webster, of Aberystwith University; under the Department of Sociology by Dr. Cabot, of Harvard, Judge Hoffman, T. M. Mott and Dean Ira MacKay, of McGill. Other lectures were given under the Classical Department by Dean Laing of Chicago University, under the English Department by Bliss Carman and under the French Department by M. Morize. Other lectures were given by Count de Prorok, Mr. G. R. Orage, a well known English journalist, Sir George Foster on the Protocol and by Signora Palencia on Spanish Dress.

The Hall was also used for the concert of the Students' Choral Society and for a debate held between McGill and Cambridge Universities. The Alliance Francaise, as usual, had the use of the College Hall for one of their meetings and the French Department produced a play.

The College is giving the use of its classrooms and Hall to the Historical Association of Canada for two or three days at the end of this month.

CONCLUSION.—It is obvious that the accommodation of the College is taxed to the utmost, the outstanding need being more study-bedrooms for resident students and better cloakroom accommodation for non-resident students.

The Acting-Warden would like gratefully to acknowledge the support she has received from Miss Lichtenstein, the other resident members of the Staff and from the students. Her period of residence at the College has been exceptionally pleasant to her.

CHARLOTTE G. GARSIDE,

Acting-Warden.

FACULTY OF MEDICINE

The session 1924-25 opened under auspices which may be considered most favourable. More than 400 applications for entrance into the first year were received, and 94 students were chosen. Of these applicants 124 were from Canada, and 277 from the United States. Of those accepted 70 were British and 24 from the United States. It may be anticipated that during the next few years relatively fewer Canadians will apply to McGill for their course, and this arises from a variety of causes:

1. The growth of the provincial medical schools and the development of the provincial spirit with its loyalty to its own local institutions.

2. The increased standards of entrance requirements into medical schools.

3. The relatively greater expense of our medical course as compared with that of other Canadian medical schools, as also the higher cost of living in the Canadian metropolis.

It will be noted from our University statistics that from year to year a considerable portion of the students have been retired prior to the conclusion of their academic career. This has occurred chiefly in the earlier years, and arises from a desire not only to maintain a high standard in the School, but likewise to avoid the all too frequent error of permitting men to drag out a futile academic existence until the final year. In the past, excessive leniency has sometimes permitted unworthy students to graduate—or all too late they have been doomed to disappointment in failing to attain a degree.

The McGill Medical School is a national, not a provincial institution, and it is the desire of the Faculty to so maintain its standard as to attract the best intellects from amongst the youths of Canada, and a better type of student, even if in smaller numbers.

Relations With Other Schools

We are pleased to report that our relations with other schools are becoming each year more satisfactory, and that in matters of administration there is the most harmonious coöperation. Our affiliation with the Americal medical colleges has been of great benefit to our own school, and through interchange of ideas, the cause of our medical education is we believe materially advanced. At the same time the relations with Great Britain are likewise becoming more intimate, enabling our students to obtain privileges which will be of great use to them in their graduate years.

Changes in the Curriculum

Alterations in the entrance requirements for the Medical School, which were initiated last year, have proved eminently satisfactory. The sub-divisions into premedical years (one or two, as occasion demands), and five purely medical years of study as such, simplified the work of our administrative office and facilitated our dealings with other schools in Canada and the United States. These requirements should now be quite intelligible to all concerned, and we hope the standard of entrance is thus more stabilized, and in no wise lowered. Physics, Biology and Chemistry (inorganic and organic) are taught under the aegis of the Faculty of Arts. The professors in these premedical subjects are still retained in the Faculty of Medicine, and teach prospective medical students in a way that enables them to form a coördinating link between these scientific and cultural subjects and those that are purely medical.

CLINICAL SUBJECTS.—Not only have the hospital teaching facilities been augmented, but the opportunities for the students have been more systematically utilized so that students and teachers are reaping the benefit in the laboratories, the wards and the Out-patient dispensar-

ies. Students of the Third year carry out practically all their clinical studies in the Royal Victoria Hospital; those of the Fourth year visit the clinics of the Montreal General Hospital almost exclusively; whilst the students of the Final year pursue their hospital work in groups equally divided between these two large institutions. This enables them to follow their routine work much more systematically, and results in great economy of time and energy.

The Out-patient departments are being utilized more than ever before for student-training, and the Dispensary of the Royal Edward Institute for Tuberculosis which is affiliated with the Medical School is regularly visited for instruction in tuberculosis.

University Clinic

The new University Clinic established at the Royal Victoria Hospital as a result of the Rockefeller gift, is now well organized as to laboratories, equipment, and staff, and the routine work is progressing in a very satisfactory manner. The staff has been rearranged and augmented, so that for the purposes of teaching and research the Department is singularly efficient and progressive.

The Montreal General Hospital has completed its new clinical laboratory, and added extensive modern equipment. This, with an increase in the professional and technical staff, has likewise been a great asset to the School, both for instruction and research.

The new Maternity Building now under construction promises to be one of the best equipped buildings of its kind anywhere, and with the large increase in teaching beds and laboratory facilities should make possible the very highest type of teaching and research in both obstetrics and gynaecology. One hundred beds will be available for purposes of instruction.

Post-Graduate Work

In addition to the usual post-graduate work carried on throughout the session with ever increased interest and importance in nearly all the departments of the Faculty, an excellent course lasting four weeks was given during the month of April, to supply the needs of general practitioners and specialists. This course was fairly well attended, and it is proposed to continue it indefinitely.

With the abundant facilities now provided for the training of graduates in any line of medical work desired, there has been an added stimulus to attend graduate instruction in laboratories and hospitals. The new modern clinical laboratories, the new pathological buildings, the increase in the staff, as well as the added interest that has been infused into the scientific departments have given rise to greater activities in post-graduate work.

In this connection it is interesting to report that the Cooper Fellowships granted to four graduates in the recently re-organized Department of Experimental Medicine, have been a very important factor in linking together the Departments of Physiology and Internal Medicine. Holders of these Fellowships carry on their work in hospital wards and the laboratories, and are assistants in the teaching of the physiological department.

Preventive Medicine

In considering the developments of the future, due regard must be paid to the great changes occurring in the attitude towards medical education. It is necessary to inculcate in the minds of undergraduates the ever-increasing importance of Preventive Medicine, as well as to bring them into ever closer touch with the community problems of health and disease. It is believed that a distinct advance will be achieved by teaching students early in their course the general out-

lines of Preventive Medicine, by bringing them directly into contact with the efforts made in the community to prevent disease, and to maintain the younger generation in good health as an asset to the nation. To further this end, the doctrine of Preventive Medicine will be infused into the teaching of every department where possible. It is hoped that in the near future Scholarships may be established to encourage this work, and with an adequate budget, the Departments of Public Health and Preventive Medicine may be completely reorganized with this end in view.

In this connection, the prospective Child Laboratory will do much to further this aim, and by linking up with the institutions concerned with parent education and child welfare, the School will make its influence felt amongst the public.

The Medical Library

Some administrative changes have occurred improving the facilities for the use of the Library which is now absorbed, from the executive standpoint, by the University Library. The supervision by the University Librarian has been most helpful, harmonious coöperation exists, and distinct progress may be recorded.

The Faculty did not approve of the principle of separate departmental libraries, nevertheless, realizing the importance of having adequate literature in every department, it has arranged for loans (upon call) of large series of books to any department for an indefinite time.

The Osler Library has not yet arrived, pending the completion of a detailed catalogue in Oxford. The preliminary sections which have been completed, clearly indicate the great value of this contribution to McGill University.

Among many other gifts which might be mentioned during the year, should be recorded one from the Misses Roddick of numerous medical portraits; from the estate of the late Dr. A. E. Garrow of his valuable library, and donations of

books from the many members of our own staff, including among which should be more especially mentioned the larger gifts of Doctors H. S. Birkett, W. G. M. Byers, F. G. Finley, and F. J. Shepherd.

Museums

A revised University policy with respect to all museum collections is now being formed. This will involve the discussion of the problems as to the disposition of medical collections and those of its ancillary branches. It is hoped that important changes will be effected not only for the benefit of the students in all the Faculties of the University, but for the public at large.

Personnel of the Faculty

With a view to inviting more interest from teachers in the clinical sub-departments on matters of Faculty policies, representatives are now being selected annually to participate in the Faculty discussions on problems pertaining to their particular departments.

Appointments

Professor S. W. Bliss, M.A., Ph.D., of Harvard University, for many years associated with the Biochemical Laboratories of that institution, was appointed Assistant Professor of Biochemistry.

Prof. H. S. Birkett was selected as member of Corporation representing the Faculty of Medicine in place of Dean Ruttan.

Resignations

It is with regret that we announce the resignations of Professor J. L. Todd from the Department of Parasitology, an outstanding professor in the Faculty and a pioneer in his subject; Professor Logan from the Department of Biochemistry, who has accepted a call from Queen's

University, Kingston, and Dr. Wilkins, radiographer, for whom the exigencies of private practice made it impossible to continue an academic career.

Obituaries

We regret to report the loss by death, of several valued and esteemed members of the teaching staff.

Professor F. A. L. Lockhart, connected with the gynaecological department for over thirty years, passed away in January, whilst Dr. Armour A. Robertson, who had been a teacher in the Departments of Physiology and Medicine for more than twenty-five years, succumbed to a short illness in April. These teachers had earned a distinct reputation in the clinic and the community, and will be sadly missed by their colleagues. Two other members of the teaching staff passed away during the session: Dr. H. L. Pavey, for some years associated with the Department of Medicine, and a conscientious teacher, as also Dr. J. Stafford, Assistant Professor in Zoology, whose devotion to his work will make his loss keenly felt in the Medical School.

Gifts

The medical school is further indebted to the Rockefeller Foundation for the gift of various scholarships granted to promising graduates who are at present abroad preparing to return to McGill as teachers and investigators.

A generous donation of $10,000.00 a year for five years, from the Laura Spelman Rockefeller Foundation has resulted in the initiation of plans for a Child Laboratory, for purposes of Child study, and a far-reaching movement in the interests of child welfare in the community. The Metropolitan Life Insurance Company in contributing $1,000.00 to this work have made possible some important investigations in respect to the same problem.

The Royal Society of Medicine in its desire to reiterate its interest in McGill University, and its cordiality, has presented the Medical School with a rare print of Sir Edward Jenner.

Memorial Tablets

A relief in bronze of the late Sir William Osler has been kindly offered by Lady Osler to McGill University, to be placed in the room allotted to the Osler Library.

Memorial tablets have been erected in the Medical Building to the late Dr. J. W. Scane, Registrar of the Faculty, and to Miss Brand, his assistant.

C. F. MARTIN,

Dean.

FACULTY OF ARTS

To the Visitor, Principal and Board of Governors
of McGill University.

Dear Sirs,—

In the report of this Faculty for last year I departed widely from the usual practice. Instead of offering figures and tables of figures I attempted to discuss freely some of the aims and methods of liberal education in the arts and pure sciences, In the present report I intend to continue this discussion of some problems of University policy. Every human institution or organization is composed of four functions and they are these, viz., Policy, Legislation, Administration and Employment, and the greatest of these is Policy. By Policy I mean the aims and ideals which move the members of the institution itself. The great thing in every University is a clear compact vision of the grade and quality of higher education which the University wishes to offer to its students and intending graduates. Without this vision and the necessary careful thorough consideration of the methods by which it may be achieved, all capital, lands, buildings, equipment and organization are so far wholly misapplied and wasted.

"1928"

The total number of students registered in the College during the academic year just ended was 1,069 and they were divided as follows:—616 in Arts, 148 in Science, 182 in Commerce, and 123 partial students not aiming at any degree. Of the total number of undergraduates (946) 470 were successful in passing in all their subjects of study at the examinations in May and of the rest 418 failed, or, as is said at McGill, were "conditioned," in one or more subjects, and 58 either failed to appear for examination or retired from the University during the year. The total num-

ber of students registered in the first or freshman year was 373 and they were divided as follows:—227 in Arts, 67 in Science and 79 in Commerce. Of this number 79 were successful in passing in all their subjects of study, 252 were conditioned in one or more subjects and 42 either failed to appear or retired during the session. These results are not as encouraging as they should be. The fact that other universities of the highest rank are reporting as bad or even worse results is no honest consolation. There are special sentiments, traditions, privileges and ideals at McGill which should prevent us from drifting with the tide.

Very few people, I imagine, realize how completely any large number of conditioned students throws the whole university mechanism out of gear. The student who is conditioned in one or more subjects must carry these subjects as additional or extra studies during the rest of his university course of study or, at least, until he succeed in removing his conditions. Imagine, then, an army on the march in which the weaker men in the line are compelled to carry an increasingly heavier burden than the stronger and you may, perhaps, realize the serious nature of this problem. How long would an army commanded in this way be able to march in line and what would be its chance of achieving any substantial victory after it had reached its objective? I do not think there is any fallacy in this figure when discussing a plan or system of education by which we attempt to educate students in classes or squads as we do at present in all parts of the United States and Canada.

The arguments outlined in the next preceding paragraph are not by any means merely abstract inferences. A careful survey of the examination returns during the last few years proves with startling emphasis that the percentage of first class students in any given class decreases in rapid ratio with the number of students enrolled in the class. A typical class of, say, forty students will return about as follows:—First rank, 6;

second rank, 10; third rank, 18; failed, 6; and a typical class of, say, 160 about as follows:— First rank, 12; second rank, 20; third rank, 68; failed, 60. It would be difficult, I suggest, to find better evidence than this of the serious way in which a large number of poor students tends to depress the general level of work in the classroom and to deny to those of higher rank the opportunity they alone really deserve. With these figures before us only one of two courses can be taken in the future at McGill. Either the student body must be prepared to do much more work and better work than at present or a large number of students who are now admitted to the University will have to be refused admission altogether. More students must learn the lesson of the eight-hour day. The young man who goes into business at the end of the High School is expected to work eight hours a day and there is no reason why the presumably more ambitious young man who aims at the distinction of a University career should be allowed to work less. It is impossible to cover properly the work done in English Literature, French, Physics, History and other subjects at McGill without, say, three or four hours of serious home work each day for five days in the week throughout the session, and if there is one practical maxim I should like to offer all students it is this: "It is easier to keep up than to catch up."

Student Activities

The results of which we have been speaking are sometimes attributed to what have now come to be called "student activities." I do not think, however, that the practice of student activities is seriously overdone at McGill. Athletics, The Daily, The Student Union, Mock Parliament, University Debating and Amateur Drama are all perfectly legitimate and commendable University exercises. The claims of athletics are, doubtless, exaggerated but it is difficult for any one university to grapple single handedly with this problem and the number of students seriously affected by "the big events"

is not large. Amateur dramatics, doubtless, occupy far too much of the time and attention of most of the students who engage in them. The number of recognized intra-mural entertainments of a social character, however, is not excessive at present. I am frankly, therefore, inclined to suggest that the aforesaid results are really derived from extra-mural influences coming from the community and the home and to a large extent, therefore, beyond the reach of the University. I do not wish to fall to low thoughts, but the plain fact is that no student who attends two dance parties every week until after midnight or who is conscripted into making a fourth hand at bridge three nights in the week in his own home can ever expect to take out a creditable degree at Old McGill.

I once knew a community where the people were intensely interested in education. They thought that education was the Summum Bonum, the greatest secular thing in all the world. Then this community built and maintained a famous Academy, and the students from the Academy soon began to rive new life into the bones of a dead College which afterwards became a University, and this University, although really only a little college, sent out an extraordinary number of successful graduates into the world. Most people attribute their great success to the University. Some think that this success is really due to the Academy. Only those who lived in the community know that both the Academy and the University were mere incidents by the way and that the real honor and glory is due to the home. It is the free, independent, self-reliant, ambitious work and study of the student outside the classroom that really counts in a successful university career. It is a strange but true paradox that both the best and the worst students in a university classroom learn little from the lectures.

Matriculation

Some interesting discussion took place in the Faculty during the session over the problem of

matriculation standards. Nearly all the discussions, too, at the Canadian Universities' Conference held at Halifax in June last turned upon this problem. Possibly, indeed, this problem is vexing the Universities more than any other at present. There is no doubt, too, that the problem is of great importance. I cannot help feeling, however, that no real solution will ever be found by merely administrative methods. The education of the scholar in the school turns upon two fundamental relationships, the relationship between the instructor and the scholar on the one hand and the relationship between the scholar and the parent on the other, and unless these two relationships be vital and strong no life will come. The two great things are devotion and enthusiasm in the home and an example of scholarship in the school. Without these all rules, regulations, standards and pedagogical measurements and tests are futile. The standard is the example. The standard is the ideal, not the average. We are using the word "standard" in a wrong sense. That is, perhaps, the greatest mistake we educationalists are making at the present time. We often attempt, for instance, to raise the standard for admission to the University by increasing the amount of work which the student is supposed to cover before he comes up for Matriculation but only to find that we are mistaken. What is really needed is not a greater quantity of work but better work. Much better, for example, a single book of the Aenead or the Odyssey translated inimitably than a dozen books translated in the imperfect untidy way in which this class of work is too often done in the schools at present. The aim of education is to bring the student to the point where he may enjoy the experience of real scholarship in his own person even if it be only for an hour or two. That done, he has learned the greatest lesson which any institution can teach him.

Some slight changes were made in the Matriculation tests during the session. Under the old rules a student to be successful must have made

50 per cent. in each and all required papers, and was allowed a period of two years in which to take his examinations piecemeal. A candidate might also be admitted carrying a condition in one subject. Under the new rules a student to be successful must make an aggregate of six hundred (600) points on all ten papers taken together with no one paper falling below 40 per cent. and is restricted to a period of one year during which he may take his examinations piecemeal, and no student carrying any condition will be admitted from now on. The new rules are, I think, a slight improvement on the old ones but I admit that nothing really effective can be done until the work in the High Schools is improved and the examinations more carefully prepared and more strictly examined, especially in those qualities of neatness, accuracy, clearness and originality so sadly lacking at present. I am personally much in favor of adding a general written intelligence test to the usual old-fashioned matriculation examinations for the purpose of bringing out these very desirable qualities in every intending university student. This type of test has already been widely approved both in England and the United States.

Lectures

In the report of last year I seemed to attack the lecture method of instruction. I trust, however, that no one thinks that I should propose anything so absurd as the total abolition of the lecture system. The method of class-room lecturing has always been and always will be, I imagine, the most effective device in teaching method in the colleges of this continent. What I had in mind was the present abuse of the lecture method long prevalent in the schools of the United States and Canada. I cannot help feeling that we have a large lesson to learn from Oxford and Cambridge in this question. I recognize that the English and American system aim at opposite poles, and that both of these systems grew out of very distinct differences in tradition and environment. The

American system aims mainly to deliver the whole community from gross ignorance and the English system mainly to train up a limited number of young men showing exceptional promise in scholarship and statecraft. The peculiar destiny of McGill ought to be to effect, as far as is humanly possible, a logical synthesis of the best in both these systems. I am inclined to think, therefore, that all or nearly all the members of the Faculty of Arts will agree with me that we are doing far too much desultory lecturing at present at McGill. The lecture should be an example of scholarship, better leave the student to his textbook, his sourcebook, or to his original authors to study for himself with the occasional assistance of an individual tutor. In any case I am convinced that fifteen hours of lecturing each week is excessive both for professor and student, and we are now doing eighteen hours plus two hours of physical education and two hours of laboratory practice, or twenty-two hours in all, in the freshman year in the Faculty of Arts at McGill, and this is the minimum.

The evils of overlecturing are obvious and positive enough. Three lectures per diem given at irregular hours both in the morning and in the afternoon break up the students' working day overmuch and so tend to cause the formation of divided desultory habits of daily work. When compulsory lectures are so frequent the contents of the lectures themselves accumulate so rapidly that even the most careful, thorough student is compelled to make the lectures the basis of his study and to confine his independent study to such small parts of the subject as will best serve to complete his lecture notes for examination purposes. Finally, the habit of dumb listening to oral lectures month after month for four long years always tends, slowly but surely, to undermine the student's natural initiative to undertake free, independent study and research of his own in any subject. The net result is, therefore, that the student leaves the University after four years

with a plentiful supply of note-books useful, no doubt, at times thereafter but which, nevertheless, fall far short of containing an adequate record of any real abiding University education. A liberal education, such as any University Faculty of Arts and Pure Science should be prepared to offer, contains many elements or factors of which, perhaps, the following are some of the most important:—(1) Wide acquaintance with the original sources of standard information; (2) wide knowledge gained from the copious critical reading of great books; (3) a clear unbiassed understanding of the simple great revelations of scientific research and reflection; (4) some nurturing love of the beautiful; and (5) the power to express these intellectual possessions in oral or written form with accuracy, vigor and grace. I do not think that we are getting these results by our present intensive, continuous use of the method of classroom lecturing in as large a measure as we have the right to expect. We are trying over-anxiously to do for the student what the student should be taught to do for himself.

I, therefore, repeat the recommendation of last year that the number of lectures be reduced by at least one-third, that the conference method be tried out freely during the first and second years, and the colloquium or tutorial method in the small advanced classes during the third and fourth years, and that generally an effort be made to base all examinations and tests more upon the students' textbooks, source-books and original authors, and less upon the lectures than at present. Or perhaps better still, why not leave the departments largely free to adopt each its own methods and measurements of work? Each department should know best how to do its own work. I admit that this is not always the case, but to proceed upon any other principle might be fatal. After all is said, a meeting of the Faculty in full session may sometimes be more despotic than even a Dean. The word lecture in common use has come to cover everything from silently listening to a student

translate a passage from Homer or Horace to a learned unintelligible discourse on Kant's Critique of Pure Reason or an impassioned speech upon Labor and Capital. Clearly no one method or system of measurements can apply equally well to so many different subjects and to so many different types of teaching.

Appropriations

Perhaps, however, the subject we have just been discussing turns in a practical way upon the problem of staff appointments and appropriations on salary account. At present the usual practice is to leave it to each department to show cause why a further minor appointment should be made to undertake one or more of the numerous and often distinctly fragmentary courses of study laid out in the annual Calendar. I cannot think that such haphazard practice as this can yield the best results in the long run. Some respect to the proper correlation of studies is essential. As I suggested last year, all subjects of study are presumed to be of equal value in a liberal education and all appropriations on salary account should, therefore, be made as nearly equal as possible. Interdepartmentally this principle seems fairly self-evident, but it leaves out of account the question how appropriations should be made within the departments themselves. Let us then take a concrete case. The appropriations on salary account are generally divided into carefully graded sums ranging from $2,000 to $5,500 per annum. Much better, I suggest, that the amount should be divided on the following principle: a fairly large salary to the chairman or head of the department, a rather smaller sum to his chief colleague, and the balance divided into a number of teaching fellowships or tutorships for graduate students ranging in amount from $500 to $1,500 per annum. This allocation is only a rough suggestion, but I believe that if adopted in principle it would in due time produce the following highly beneficial results: (1) It would put the Uni-

versity in a position to appoint a number of outstanding scholars of international reputation and influence to its professoriate; (2) it would open up a career of distinction and competence to ambitious young scholars who are now attracted by the larger incomes earned in the professions and in business; (3) it would reduce and, I am confident, improve the quality of interpretative formal lecturing in University lecture halls; and (4) it would lay the foundations for a really first-class school of graduate study and research in the only way in which they can be well and firmly laid at present in this Faculty. These graduate tutors, besides carrying on their own studies leading to a higher degree, would read all examination papers and prescribed class essays, conduct all conference of students in small groups, assist and direct the junior students in their laboratory exercises and home reading, and generally do all the clerical work of their respective departments and would in these ways, therefore, both advance their own studies and gain some practical experience and training in university work. I am confident, indeed, that many of these tutors would soon prove more effective class-room lecturers than some of the full-time assistant professors whom we now appoint on meagre discouraging salaries.

Some Departments

I wish to add a few suggestions affecting two or three of the departments in this Faculty. First of all it seems to me that a competent department of Education has long since become an imperative necessity. I know that the schools of the United States have in recent years placed too much emphasis on professional training at the expense of academic scholarship. That is only the old fallacy of placing more importance upon methods and systems of instruction than upon an example of scholarship and manly character. Some professional training is necessary, however, and at present there is really no such training offered to intending English speaking teachers in the high

schools and junior colleges of this Province. We need, therefore, at McGill a strong department of Education where intending teachers of high grade may have an opportunity to specialize in the study of educational methods and ideals during or after the time they are engaged in the academic mastery of the special subject or subjects which they intend to teach after they have left the University. This is obviously one of the ways in which McGill may help in the general educational work of the Province in a most powerful manner.

The department of Classics is doing mose excellent work at present but under some difficulties. The almost total eclipse of Greek is one of the saddest stories in secondary and university education on this continent. In this Province, too, owing to our ethnological neighborhood, the study of French offers a powerful counter-attraction to Greek. The result is that the gain in French scholarship is very much less than the loss in classical scholarship. Latin scholarship is not classical scholarship. Indeed much of the Latin done in some colleges calling themselves classical is astoundingly remote from Latin literature. After all the art, literature, philosophy and politics of Rome were, for the most part, only swelling imperial imitations of Greek models. The "stuff" of classical education is, therefore, to be found much more in ancient Athens than in ancient Rome. Something must be attempted to revive the study of Greek among at least a few of the more promising pupils in the high schools intending to follow up a university education in the liberal arts. The study of the ancient classics is the best instrument hitherto devised for delivering the student from the slovenly unscholarly use of his own language, and the longer I live the more I am convinced that the old training in classics, mathematics and the beginnings of philosophy and elementary science is the best foundation in early training upon which to build an edifice of university education, no matter what the final subjects of university study may be. Far too many

students at present attempt the more discursive complex studies in the curriculum before they have had the necessary training.

The department of Economics and Political Science is, I need scarcely say, doing unconditionally good work and some of it truly pioneer work. It seems to me, however, that the time has come when we should extend the work of this department upward into graduate studies leading to the Doctor's degree. It is impossible for the Canadian Universities to recruit this department wholly by appointing men who have received their graduate training in Universities outside of Canada, and this for the simple reason that these Universities pay no special attention to the numerous problems in economics and politics peculiar to conditions in Canada. Furthermore, the urgent claims of public service and public life can not be overlooked by any proud University worthy of the name. I should like, therefore, as I have said, to see this department extended upward, and I may also add that I should like to see real live Chairs in Imperial and Canadian History and in International Law and Relations closely affiliated with its work.

McGill College

There is an express condition in the will of our revered founder, James McGill, that one of the Colleges in the University should be known forever as "McGill College," and there is no doubt from the context and surrounding circumstances that the institution he had in mind was the old building which presently forms the headquarters of the combined Faculties of Arts, Pure Science and Commerce. We owe it to his memory, then, to preserve the name "McGill College."

In the report of last year I followed my predecessor, Dr. Gordon Laing, in urging the early reconstruction of the present building. Later on a resolution was brought in Corporation recommending that a first lien be created upon all capi-

tal University funds for this purpose and was carried unanimously. During the year careful plans of the new interior were prepared and I am sure that these plans will meet the approval of the Faculty when the work is completed. All voices far and near urged that the present front view be retained and that has now, I think, been finally decided. The present front view has more of the simple, homely, antique character so becoming an Arts Faculty than could be procured in any new exterior without expending a large amount of money much needed for other purposes. Some of the minor structural defects are obvious enough, but it seems to be one of the paradoxes of architecture that that is the way most beautiful buildings are made. I hope that before this report is printed the work of reconstruction may be well under way.

All of which is respectfully submitted,

IRA A. McKAY,
Dean.

September 11, 1925.

FACULTY OF APPLIED SCIENCE

During the past year the Faculty has been co-operating with the Society for the Promotion of Engineering Education in the comprehensive survey undertaken under the auspices of the Carnegie Foundation, of matters pertaining to engineering training. The object of the survey is to gather information not only regarding the objectives and methods of the universities and engineering schools in America and Europe, but also regarding the experiences and opinions of graduates and former students. Questionnaires were prepared for the purpose of ascertaining graduate opinion, and were sent to all graduates whose addresses were known. The response has been very gratifying. Nearly five hundred replies have been received already and the number is increasing daily.

The replies are in general frank, thoughtful and constructively critical. While there is a great diversity of opinion on specific questions, certain broad tendencies are becoming more clearly manifest as the number of opinions received increases. A mass of very interesting information regarding the experiences of our graduates is also accumulating. A careful analysis of this information will be made as soon as possible and there can be no doubt that it will prove of great value.

The Faculty has also given a great deal of attention to the consideration of its educational objectives and to the problem of student wastage. As a result of its earlier deliberations it was generally agreed:—

1. That the total volume of work in the undergraduate courses could not be increased. It is already sufficient to tax the capacity of all but the abler students, and it affords sufficient scope even for them.

2. The present standards in the fundamentals underlying the study of all branches of engineering must not be lowered. On the contrary, it is

necessary to insist on greater thoroughness of attainment on the part of the average student.

3. That students should have more time free from regularly scheduled exercises, in order that they may have a better opportunity for assimilating the subject matter of their courses, and also for broadening their mental background by collateral reading.

4. That some means should be found to secure a higher standard of attainment in English, in Economics and if possible in other studies making for a more liberal education.

5. That these aims can only be realized by either, (a) lengthening the undergraduate course, or (b) eliminating some of the less essential work of the present courses, or (c) materially raising the entrance standard, or (d) a combination of the two latter expedients.

The addition of another year to the undergraduate course was not favorably regarded. Some of the work now done in our first year, as well as the additional work required for a more satisfactory entrance standard, can, it was felt, be accomplished equally well, and more economically, in many of the preparatory schools throughout the Dominion, or in any of the provincial universities. It was therefore decided, with the approval of Corporation, to exact a standard equal to that of senior matriculation, in the case of students entering in 1927 and thereafter. This will require an extra year in the preparatory school, or a year in the Arts Faculty of some university. It is hoped that the greater maturity and more thorough preparation of students entering under the new standard will be an effective factor in reducing the regrettably high percentage of eliminations in the earlier years of the undergraduate course.

In order to improve the entrance standard gradually during the next two years, the Faculty will in 1925 reject candidates who have any matriculation conditions, unless their general stand-

ing is exceptionally good. In 1926 a higher pass standard in the present matriculation subjects will be required.

The question of student elimination has received much attention. A study of our records from 1900 to 1924 shows that about 60 per cent of the students entering the first year eventually graduate, a considerable number taking five or six years to do so. This percentage, except as disturbed by the war, is remarkably uniform over quinquennial periods, showing that present conditions are not new. In the case of the colleges in the United States reporting to the Investigating Committee of the S.P.E.E., about 40 per cent of the entrants graduated in the same period, thus almost exactly reversing the McGill figures. During the past session, however, the number of failures in our two lower years has been exceptionally and distressingly large, as indicated by the following condensed statement:—

FIRST YEAR 1924-25

Registered for full course			122
Dropped or left during session:			
Poor scholarship	5		
Ill-health	2		
Other reasons	3		
	—	10	
Eligible to proceed to second year:			
Without conditions	17		
With "	55		
	—	72	
Required to repeat the year	30		
" ,, withdraw	10		
	—	40	
		—	122

SECOND YEAR 1924-25

Registered for full course			97
Left or dropped during session:			
Poor scholarship	4		
Ill-health	3		
Other reasons	1		
	—	8	
Eligible to proceed to third year:			
Without conditions	14		
With "	39		
	—	53	
Required to repeat year	20		
" " withdraw	16		
	—	36	
		—	97

It appears from the foregoing that 37 per cent of the students in the first year and 43 per cent of the students in the second year were unable to

"make their year," and the number will probably be increased by the opening of next session through failure to remove conditions. In the third and fourth years the percentage of failures was very much smaller.

Any attempt to discuss the causes of failure is rendered more or less futile by the lack of exact data. It is probable that among such causes are the following, but in what proportions they are contributory it is impossible to say.

1. Lack of adequate preparation. Experience shows that students who have entered with a matriculation condition are just about twice as likely to fail as those who have entered clear. This condition lies squarely at the door of the Faculty, and it is not too soon that remedial steps have been taken.

2. Lack of definite purpose on the part of the student. It appears probable that a larger proportion are now entering without any definite taste or aptitude for scientific or engineering work, and without a clearly cut objective.

3. Lack of the will power necessary for concentrated, if not prolonged application, in face of the more than abundant opportunities available for amusement and social distraction. This we have always had with us, but it may be questioned whether the general habits and attitude of the community at large are so potent in helping the student to overcome it, as they were in other days.

4. *Over* participation in campus activities. There is ample evidence to show that the average student can engage with the utmost zeal and effectiveness in any one of the major athletic or other activities with advantage to himself and without detriment to his academic career. He may indeed find it necessary to exercise the same capacity for whole-hearted and concentrated effort in his studies as in his other activities. If so he will benefit, proportionally, by the double self discipline, and will have the satisfaction of reflecting double credit on his Alma Mater. On

the other hand, it is usually impossible for a student to take an active part in many of the larger activities in one session and at the same time do justice to his academic work. A little wise guidance on this point, coming from whatever source may prove most effective, should reduce the number of failures.

5. Defects in the curriculum, if such exist, overcrowding of studies, lack of co-ordination, defective methods of presentation, must be given their share of responsibility.

Questions arising under the last mentioned head have received the earnest consideration of the Faculty. Pending the adoption of a higher matriculation standard a complete revision is impracticable and must in any case take some time. But a beginning has been made and the following changes have been decided upon and have received the approval of Corporation.

Shopwork in the first year and two lecture courses, connected therewith, one in the first and one in the second year, have been abandoned. While the value of the training received in the college workshops has been considerable, it is felt that such training cannot replace that to be obtained under commercial conditions. A weighty consideration, among many others, is that in the commercial shop and in the field, the student rubs shoulders with workmen whom he may afterwards be called upon to direct, and thus becomes familiar with their point of view. In order to replace the college shopwork in part, students will in future be required, before receiving their degrees, to satisfy the Faculty that they have been employed six or eight months at least in some approved industrial or engineering work. It is not expected that this requirement will present serious difficulties. Even in the last few years of comparative depression, 85 per cent or more of the students have been employed nearly three months, on the average, during each vacation. More effective and systematic measures must,

however, be taken by the Faculty to help students to secure suitable summer employment.

A course of lectures of a descriptive nature, now given in the second year, will be replaced by prescribed reading, with occasional conferences as may be necessary. This is frankly an experiment, but it is hoped that it will save the student's time, reduce the burden of taking imperfect notes, and serve to cultivate the valuable habit of getting information for himself. If successful, the method may be extended.

A part of the time saved in the first year will be left free for the student; the remainder will be utilized for two new periods of instruction or study. A brief course of lectures will be given by various senior members of the staff, or by notable outside lecturers, when available, on the History of Engineering or the History of Science. The chief object of this course is to stimulate the interest and imagination of the young student at the beginning of his engineering and scientific studies, by acquainting him with some of the greatest achievements of his predecessors. The object of the other course referred to will be, briefly, an attempt to lead the young student to think for himself by setting him to solve, under the most skilful guidance available, a series of problems suitably graded, and selected from a wide field, which will also serve to bring home to him the inter-relation of his various subjects of study.

Towards the end of the session the Faculty sustained a very severe loss in the death of one of its most promising and most highly esteemed members, Henry Melbourne Lamb, M.Sc., Associate Professor of Civil Engineering. For eighteen years he had proved himself an admirable teacher, and since taking his seat on the Faculty—but little more than a year ago—he had shown equal capacity in the discharge of administrative duties.

Reports received from the several Departments are appended.

H. M. MACKAY,

Dean.

Department of Architecture

During the past year there were twenty-nine students in the Department. Four students graduated.

A travelling scholarship of the Province of Quebec Association of Architects was awarded to H. A. Valentine of the Second Year.

The sketching class, under Mr. Carless, visited Quebec and neighborhood for the study of the old architecture of the province.

The usual annual exhibition of students' work was held in the Art Gallery, Sherbrooke Street, by kind permission of the Council of the Art Association. The Department also contributed largely from its collection of photographs and drawings to the exhibition of the old architecture of the Province of Quebec held by the P.Q.A.A.

Extension courses were given by Mr. Lesslie Thomson, lecturer on Structural Engineering on:—

"Engineering for the Architect," 5 lectures, and by Mr. Thomson and Professor Nobbs on:—

"Yacht Designing," 5 lectures.

In consequence of changes which are being made in the matriculation and curriculum of the First Year in Applied Science, the Faculty has approved of changes in the first year of Architecture as follows,—

(1) The matriculation will remain as at present for Applied Science.
(2) First Year students in Architecture will take Arts Mathematics with a pass standard of 50%.
(3) Special tutorial work in Mathematics will be arranged.

(4) Mechanics and Physics will remain as at present.
(5) General History is omitted from the curriculum, the work to be made up in summer reading.

As students enter the Department in the second and third years as well as in the first, a comparison of the number advanced in each year gives little information as to wastage. Experience shows that students withdraw from the course at the end of the first or second years owing either to finding the profession uncongenial or to inability to reach the required standard in Mathematics.

The failures in Mathematics are particularly heavy. This year no students of the first year were able to pass the course, and four out of seven students will be required to repeat the year. This is a repetition, to an extreme degree, of what has occurred in previous years and suggests a doubt as to whether the Matriculation examination is really a test of fitness to receive university instruction.

It seems probable that the first year course was too heavy, requiring the assimilation of seventeen lectures a week in addition to drawing work. It is hoped that the amended curriculum, which is a little lighter, will result in more thorough work.

RAMSAY TRAQUAIR.

Department of Civil Engineering and Applied Mechanics

During the illness of Professor H. M. Lamb, whose untimely death is referred to elsewhere, the duties formerly discharged by him were very effectively carried out by Professor Brown, Mr. Dodd and Mr. Jamieson.

An extension of the work previously done on "Steel I-Beams Haunched with Concrete" was undertaken by Mr. G. E. Shaw, a student in the Graduate Faculty. He was able to establish the

hitherto unknown possibility of securing readily a satisfactory degree of continuity at the ends of such beams. This result is likely to be of considerable economic importance.

Under the direction of Professor Brown and Professor French a great deal of work was done in developing detailed plans for the equipment of the new Hydraulics Laboratory to be installed in the space formerly occupied by the A. C. Laboratory. At the end of the session construction work on this Laboratory was actively underway and it is hoped that it will be ready for the opening of the session of 1925-26.

H. M. MACKAY.

Department of Mathematics

The work in mathematics has been carried on as in recent years, with the exception of certain changes in the teaching staff.

In the re-organization of the department of mathematics in the University, Professors Murray and Sullivan have divided their teaching between the Faculties of Arts and Applied Science. A valuable addition to the mathematical staff in Applied Science is Professor W. L. G. Williams, who has come from Cornell University as Assistant Professor of mathematics. Mr. A. Campbell has taken the place of lecturer vacated by Mr. R. S. Eadie, who a year ago took a position with the Dominion Bridge Company. During the past session Professor Matthews of the Arts Faculty has had a class in mathematics in the Faculty of Applied Science.

Yours sincerely,

D. A. MURRAY.

Department of Mechanical Engineering

There have been no changes in the teaching staff of the Mechanical Department during the past year.

Owing to the construction of the new Electrical Building the instruction in Foundry and Smithy work was not given this year.

The course in Industrial Engineering has been strengthened by an additional course of lectures and drafting under the charge of Assistant Professor Coote.

Mr. Coote gave an extension course to Factory Managers and Superintendents on Industrial Management. This while not largely attended was much appreciated by those who took the course.

We have to thank the Norton Company for a valuable exhibit of abrasive wheels.

CHAS. M. McKERGOW.

Metallurgical Engineering

The teaching staff consisted of Dr. Stansfield, Mr. Sproule and Mr. Roast, assisted by Mr. G. W. Sweny, the Research Fellow. Mr. Roast conducted the extension courses in Metallography and Metallurgical Analysis.

Two students, Messrs. A. T. Powell and G. W. Sweny proceeded to the M.Sc. degree. Mr. Powell continued the work of C. R. Whittemore on the production of titanium oxide from ilmenite, for the McArthur Irwin Company, and Mr. Sweny investigated an electrolytic process for recovering copper from its ores. Original work was done by some of the fourth year students on the formation and properties of the lower oxides of iron and titanium and on a process for recovering the nickel, copper, iron and sulphur from the Sudbury ores.

During the last seven years, 49 students entered their third year with a view to taking the B.Sc. degree in Metallurgical Engineering, 6 of these left after their third year and of the rest, 41 graduated, (one in another Department) and two are ready to enter the fourth year. Thus the losses during the two final years of this course

have been 6 out of 49, or 12 per cent. Seven of the graduated students have also obtained the M.Sc. degree.

A course on physical chemistry has been added in the third year and additional lectures on metallurgical calculations in the fourth year. Greater weight is being given to the theoretical and mathematical treatment of metallurgy and less to the merely descriptive aspects of the subject. The course is felt by the students to be heavier than it was, but it provides a fundamental training in theory that can best be acquired at College while the descriptive part of metallurgy is easily gained from books and in metallurgical works. The laboratory work, also, during recent years, has been directed more to exact quantitative studies of physical and chemical metallurgy, and less attention has been given to the demonstration of large scale metallurgical operations.

The advanced instruction in the laboratory to the fourth year and M.Sc. students has again been hampered by the limited accommodation for work of this kind. In view of the continued delay in erecting the new building for Mining and Geology a partial rearrangement of the metallurgical laboratories will be started immediately with the object of providing more space for advanced instruction and research work. The changes to be made will as far as possible be in line with the more permanent plans that depend on the erection of a new building.

The extension courses in this Department have made satisfactory progress, and next session an additional course in Fire Assaying and Practical Metallurgy will be given by Mr. Sproule.

ALFRED STANSFIELD.

May 23rd, 1925.

Department of Geodesy and Surveying

The work of the Summer Surveying School was conducted during the month of May, at Ste.

Anne de Bellevue, where the Men's Residence of Macdonald College was again placed at the disposal of the Department for the accommodation of the students.

The number of students in attendance was as follows:

Fourth Year	18
Third "	19
Second "	72

The thanks of the Department are due Macdonald College, and the proprietors of Stoneycroft Farm for the use of their properties in connection with the operation of the school.

A special Field School for students entering this Faculty from other Universities, will be conducted during the latter two weeks of September, with headquarters on the College property, Westmount Hill.

A. J. KELLY.

Department of Electrical Engineering

The enrollment of undergraduate students in the department was about normal—29 in the third year and 22 in the fourth year. Four of the men in the third year were registered in the course in Engineering Physics.

In the Graduate School three men were enrolled proceeding to the degree of M.Sc. in Electrical Engineering. Two of them wrote excellent theses on High Voltage Power Transmission, and received their degrees at the Convocation in May, while the third elected to spend two years in the course and joined the staff of the Electrical Department as junior demonstrator.

No new undergraduate courses were given during the year, but an extension course for Electrical Metermen was given by Professor G. A. Wallace in June 1924 and was very successful.

Owing to illness Dr. Herdt was prevented from returning to his duties at the University after the first of the year and in his absence the course in

Electric Traction was very ably given by Professor Wallace.

A wide variety of commercial tests were carried out in the Standardizing Laboratory and in the High Voltage Laboratory.

During the year the new Electrical Wing of the Workman Building was completed and the transfer of the laboratory equipment was commenced as soon as the regular laboratory courses were completed. The building will house all the laboratories of the Electrical Department, including the new Electrical Measurements Laboratory and the Communications Laboratory. It is confidently expected that the equipment of the Electrical Measurements laboratory will be so far advanced by the end of the present year that the laboratory work given in the second term in the Fourth Year Physics course can be handled by the Electrical Department.

The equipment of the Communications Laboratory will be assembled gradually, partly by purchase whenever funds are available and partly by construction in our shops, but it is hoped that some of the companies will be in a position to aid us by donating equipment. There is evidence that a considerable amount of apparatus will be made available in this way.

The only change in the staff was that occasioned by the resignation of Mr. C. G. Gliddon, our junior demonstrator, who was replaced by F. S. Howes.

Dr. Herdt has unfortunately been very seriously ill since last December, but we are glad to be able to report that his health is greatly improved.

C. V. CHRISTIE.

Department of Mining Engineering

There have been no changes in the permanent staff of the Department, but as usual three graduates and teaching Fellows were appointed for

the session: Messrs. J. A. Becking, A. E. Cave and A. K. Muir. All three of these men carried out individual researches under the Graduate Faculty, and at the same time assisted in the laboratory work of the Department. Two of them proceeded to the M.Sc. degree at the last Convocation, and have resigned to take up other work. The third, Mr. Cave, was unable to complete his investigation in time for the May Convocation because of the very congested condition of the ore dressing laboratory, but the work has since been finished in a very creditable way.

The courses of instruction while substantially like those of the preceding year, were considerably improved by giving Mr. Erlenborn full charge of the instruction in Mining Design, a subject heretofore divided of necessity between two or three members of the staff. Mr. Erlenborn also relieved Dr. Porter by taking over certain parts of the lecture course on Mining Engineering.

The Field School in Mining was held as usual in the month of May, approximately one week being given to field geology and three weeks to a visit to the mining district of Northern Ontario. At the end of the School, the members of the class all secured employment for the remainder of the summer.

JOHN BONSALL PORTER,
Director of Mining.

June 9th, 1925.

FACULTY OF LAW

During the session 1924-25 the total enrollment in the Faculty of Law was 61, divided as follows:—

	B.C.L.	LL.B.	Examinations	Passed B.C.L.	Passed LL.B.
First Year	26	-	25	12	-
Second Year	22	2	22	18	2
Third Year	10	2	10	10	2

It is hoped that the coming into force in September, 1925, of the regulation requiring two years in the Faculty of Arts at McGill, or its equivalent, as a condition precedent to matriculation into this Faculty will be an important factor in reducing the wastage among first year students.

The graduating class maintained the standard set in the past few years, all those presenting themselves for the examinations for admission to practise the legal and notarial professions being successful. The policy of devoting special attention to preparation for these examinations which was introduced in the session 1922-23 has been amply justified by its results. Only two of our graduates of the past three years have failed to pass the bar examination at their first attempt and in the notarial examinations there have been no failures. The regular work of the Faculty has not suffered in consequence.

In accordance with the decision referred to in the last annual report no students were registered in first year for the LL.B. course. The policy of devoting our resources to the improvement of the B.C.L. course seems to be working out satisfactorily. In this connection it may be noted that at the request of the Faculty the Bar Act was amended so as to permit of a student substituting one year of full time office attendance after grad-

uation for three years carried on in conjunction with the University course as at present. Ways and means of taking advantage of the situation thus created are now being considered.

In conclusion I would like to draw attention to the urgent need of increased accommodation for the Library. Many valuable books are packed away and inaccessible, and it is very doubtful if by the fall of 1926 there will be space available for incoming reports. Unless the work of the Faculty is to be materially restricted some steps will have to be taken to provide additional shelf room without delay.

R. A. E. GREENSHIELDS,

Dean.

FACULTY OF DENTISTRY

For the Session 1924-25, there were registered in the Faculty of Dentistry 110 students. Of this number 14 were in the First Year, 26 were in the Second Year, 30 were in the Third Year, and 40 were in the Fourth Year.

Sixty-four of the students of the Faculty came from the Province of Quebec, seven from Nova Scotia and Cape Breton, six from Saskatchewan, six from the United States, ten from Ontario, two from Prince Edward Island, seven from New Brunswick, four from Alberta, three from British Columbia, and one from Newfoundland.

Our work, for the session which has just closed, marks a high-water record for our Faculty.

The clinical work of the Department of the Montreal General Hospital shows an outstanding record for the year which has just closed. Over twenty thousand visits of patients, were registered in the Department, and the work done there, in quantity, quality and nature of such work, is far in advance of any year since the establishment of the Department.

Our equipment is such that our students, in attendance at the Hospital Clinic, were enabled to receive the training which should fit students to render to their patients, after graduation, a high standard of service.

The recent changes in matriculation requirements, establish a standard of entrance, higher perhaps, than that of any other university on the continent, and should in time attract this University, a class of students anxious to obtain the highest possible training for their future life work. The probabilities are that this higher matriculation standard, may mean, for a few years, a smaller number of students, but this decrease, will we believe, be of short duration, and will ultimately prove to be of very great advantage to the University and to the students who go out from the Faculty.

A. W. THORNTON,
Dean.

FACULTY OF MUSIC

The Conservatorium of Music started twenty-one years ago with a school of music somewhat loosely attached to the University. Since that time it has developed a system of musical examinations which embrace the whole of the Dominion, and has also added a Faculty of Music leading to University diplomas and degrees. At the present time it is hampered in its endeavors to keep abreast of the times by insufficient facilities. A point has evidently been reached when the University must decide between two diverging policies for the future. One of these is to extend and enlarge the Conservatorium, which would mean the provision of more buildings and the engaging of a greater number of teachers to give individual instruction in practical subjects such as pianoforte, organ, violin, voice, etc. The question here arises as to whether this sort of work is properly within the province of a University Faculty of Music. It may safely be assumed that the ideal of the University should be to encourage all art (whether painting, music, architecture, sculpture) as bearing on the culture of students, and enabling them to form proper standards of taste. At present, the work done in the Conservatorium is largely one of technically instructing either those who are still attending school and are also below the age of the ordinary University student, or those who, having left school but not matriculated, have no intention of graduating, and treat the subject of music in a superficial and uncritical manner. It would appear, therefore, as if work of this kind should not immediately be the concern of a University. At the same time, the fact has to be recognized that whereas ordinary school education is controlled to some extent by recognized public boards, and only teachers employed who have been trained and are certificated, the teaching of music is not similarly controlled, and is engaged in by a great many men and women who, besides having no credentials,

are totally unfitted for it. This was a deciding factor in the case when the University resolved to start the Conservatorium of Music twenty years ago. At the present-day, although there are, no doubt, as many and perhaps more charlatans, there are, also, more teachers of music better equipped for their work.

It certainly was never intended by the University twenty years ago that the work at the Conservatorium should forever be mainly concerned (1) with teaching technical work, (2) with providing a means whereby music students could more quickly become performing musical prodigies, (3) with providing the moving-picture palaces, vaudeville houses and dance halls with violinists, pianists, organists, etc. The University certainly expected that, as time passed, the style and standard of work done under the auspices of the Faculty of Music would more closely approximate or conform to the ideal of a University education.

The Conservatorium has, during the last sixteen years, tried to differentiate the teaching done there from that done by outside teachers by holding musical theory classes and obliging all music students to go to them. Of late years, the executive has had great difficulty in enforcing this rule, parents and music students alike insisting either that ordinary school work is more exacting than formerly or that, having left school, there are other and more important demands on their time, but I think the real reason is that the many distractions such as automobiles, moving pictures, dance halls, etc., have more to do with the case. Under our present arrangements, a *Junior Partial* music student has to make three journeys to the Conservatorium per week for two lessons in a practical subject and one hour's class theory, and to do at least one and a half or two hours' music study a day in order to make much progress. School homework, outdoor sports, social and other distractions all combine to resist

this claim on a student's time. Our experience is that musical work is invariably the one to suffer. Serious study is more and more avoided in favor of a superficial, perfunctory and insincere smattering of the subject.

Music is often looked upon, even by educationists unfortunately, as a mere pastime, and as a subject which appeals only to the emotions. If these people knew better, they would realize that mental discipline and culture of a high order can always be found in the proper study of *real* music. Unfortunately the art has been so commercialized, so prostituted, so abused through the large amount of cheap, showy, sensational, meretricious, sentimental rubbish published that educationists, perhaps, have some reason on their side to condemn music "in toto" as an enervating, unhealthy, purely emotional subject.

Taking next the case of those who have left the public and high schools and come to us as *Senior Partials*, we find the same disinclination to serious study of the subject in even a more marked degree. Our endeavor to combine technical work with a study of the subject from the analytical, historical and synthetical point of view is frustrated in the majority of cases by a combination resulting from the feeling of freedom engendered by emancipation from school, increased social distractions, the encouragement, especially by the many women's social societies, of immature instrumental and vocal performances. Even taking those enrolled as *Regular Students* who have some intention of passing through our diploma and degree courses which more nearly concern the real University work, we find that the aim of the majority is to get a diploma as a performer, a course which they view as having the minimum of brain effort.

The second course open to adoption by the University is to admit to music only matriculants, (1) those who will take four years at the University, leading to the degree of Mus. Bac. in the Faculty of Music, (2) those who will take four years

in the Faculty of Arts with Music as an honor course and who could then, with one additional year, proceed to Mus. Bac. in the Faculty of Music, (3) a strictly limited number of partial students who, however, must have matriculated. In every case, all the musical work done at the University itself would be analytical, historical and synthetical, but every student should be obliged to keep up an instrument under a private tutor approved by the University, and examined by the University each year on the work done under that teacher.

The Competition for Scholarships, resulted as follows:—

Peterson Scholarship to Mary Frances James.
Peterson Scholarship divided between Margaret Ritchie Bell and Mina Dawson McCreary.
Macdonald Scholarship to John Walter Blackburn.
Macdonald Scholarship divided between Vera Kathleen Fox and Lucy LeBlanc.
C. W. Lindsay Scholarship to Max Chamitov.
Angus Hooper Scholarship to Boris Karassik.
Conservatorium Scholarships to Flora Peel, Sylvia Kelsey and Jacob Alman.

Instead of a Glee Club of male voices only, a Choral Society open to both sexes was formed by the students of the University, with the Dean of the Faculty of Music as President. This Society had a most successful session under the conductorship of Mr. Walter Clapperton, and gave a Concert in the Royal Victoria College on March 16th which fully demonstrated careful and regular study of the works performed. It is to be hoped that this Society will meet with increased support in future years.

The help given by Dr. Lomer, the University Librarian, should be acknowledged here. A special room in the library has been assigned to musical works and works on music. Gifts from the McGill Book Club and from various donors from time to time have helped to build up a more adequate and comprehensive collection, both in the Library itself and in the Departmental Library of the Conservatorium, but much remains to be done in this respect to place music on the same plane with other cultural subjects.

H. C. PERRIN,
Dean.

FACULTY OF GRADUATE STUDIES AND RESEARCH

The session of 1924-25 was the second year of the existence of the Faculty of Graduate Studies and Research.

Dean F. D. Adams, who was for so many years a prominent member of the Committee on Graduate Studies, resigned his several responsible positions in the University in the spring of 1924. Dr. R. F. Ruttan, Director of the Department of Chemistry, was appointed to succeed him as Dean of the Faculty.

The general organization of the Faculty was studied during the session of 1922-23 and was completed during the next session. The regulations regarding the minimum hours of definite instruction required each year and the relative value of lectures, colloquia, tutorials, seminars and laboratory work were agreed upon and enforced for the first time during the past session.

The Executive Committee, appointed to make a careful scrutiny of the applications for entrance and advancement of each student, was constituted as follows:—

Dean R. F. Ruttan, Chairman.
Principal Harrison, Macdonald College.
Dr. Ira A. Mackay, Dean of Faculty of Arts.
Prof. H. M. Mackay, Dean of Applied Science.
Prof. A. B. Macallum, Professor of Biochemistry in the Faculty of Medicine.

Among the more important changes in the Regulations of the Faculty were the following:—

The Fees for the course were increased from $40.00 to $60.00 per session. A charge for laboratory material and apparatus was ordered to be made for laboratory students. Students taking more than the minimum number of sessions to complete their course will, in future, be required to pay a Registration Fee of $5.00 for each additional session.

Authority was given to establish a course in Sociology, leading to the degree of M.A. The courses leading to the degrees of L.L.M. and Ph.D. and Geology were dropped for the coming session as satisfactory instruction could not be provided.

The following important change in the requirements for the Ph.D. degree, was carefully studied and passed:—

The course shall continue to require three years of resident study.

The first two years shall include instruction, training and direction in subjects selected for the purposes of giving the candidate a knowledge of his particular subject and its relation to cognate branches of learning, and of preparing him for productive scholarship.

After the completion of the examination in languages, and in his Minor subject or subjects, a "Preliminary Examination" shall be held at the end of the second year of the course. This examination shall cover all graduate work previously taken by the candidate and may include any work fundamental thereto. The examination shall be both written and oral.

After the candidate's thesis has been received and approved, a special and more searching examination into the subject of his dissertation and subjects intimately related to it, will constitute his final examination.

The fourteenth day of December in the second year of the Ph.D. course was the date fixed for the examinations in French and German required for that degree.

The question of establishing Extension Courses in Ottawa was again discussed and a definite plan decided upon. The Principal, the Dean of the Faculty, Dean Ira Mackay and Principal Harrison were appointed a Committee to study the question further. It was ascertained that a course given in Agriculture, extending over

two years of four terms, three of which were spent in Ottawa under proper instruction and one at McGill, leading to the degree of M.Sc. met with the approval of the Civil Service Commission, and was agreed to by the Faculty.

The 137 students registered for the session, are classified according to the major subject taken as follows:—

For M.A. degree—

Economics, 4; English, 15; French, 3; History, 3; Latin, 1; Oriental Literature, 1; Psychology, 1; Philosophy, 2.

For M.S.A. degree—

Agronomy, 7; Etomology, 7.

For M.Sc. degree—

Bacteriology, 2; Biochemistry, 2; Civil Engineering, 2; Metallurgy, 2; Chemistry, 7; Electrotechnics, 3; Ore Dressing, 3; Geology, 4; Botany, 1; Machine Design, 1; Pathology, 1; Pharmacology, 1; Physics, 5; Physiology, 8; Plant Pathology, 6.

For Ph.D. degree—

Bacteriology, 1; Biochemistry, 1; Botany, 1; Hebrew, 1; Physiology, 1; Chemistry, 16; Geology, 5; Plant Pathology, 3.

Two candidates were registered for the degree of D.C.L.

FACULTY OF GRADUATE STUDIES AND RESEARCH

The following were granted the degree of Ph.D. in 1925:

Name and Address	Previous Degrees and Where Obtained	Subject	Title of Thesis
Chipman, Harry Ritchie, Halifax, N.S.	B.A., Dal.; M.A., Har.	Chemistry	Determination of the Heat of Solution and the Specific Heat of Solutions of Alkali Halides.
Forbes, John Campbell, Medford, N.S.	B.A., M.A., Sask.	Biochemistry	Isolation of Pepsin and the Determination of some of its Physical Characteristics.
Jane, Robert Stephen, Vancouver, B.C.	B.A.Sc., B.C.; M.Sc.	Chemistry	A Study of the Colloidal Behaviour of Rubber.
Larose, Paul, Montreal, P.Q.	B.Sc., M.Sc.	Chemistry	The Diffusion of Gases through Metals.
Mennie, John Hamilton, Vancouver, B.C.	B.A., B.C.; B.Sc., Ox. M.A., B.C.	Chemistry	Vapor Density of Gases under Varying Conditions of Temperature and Pressure.
Symons, Jennie Laura, Waterloo, P.Q.	B.A., M.Sc.	Botany	Physiological Variations in Xanthium.

The following were granted the degree of M.A. in 1925:

Blumenstein, Jacob Harold, Montreal, P.Q.	B.A.	Economics	The Taxation of Corporations in Canada.
Boyes, Watson, Hull, England	B.A.	Or. Languages	The Light Shed by the Jewish Aramaic Papyri on Contemporary Biblical Literature, especially Ezra-Nehemiah.
Brownstein, Charles, Montreal, P.Q.	B.A.	Economics	Taxation of Income in Canada.
Burns, Dean Kerr, Pembroke, Ont.	B.A., Tor.	English	Canadian Orators and Oratory.
Foster, Joan Mary Vassie, St. John, N.B.	B.A.	History	Lord Carteret and the Hanoverian Policy of the Georges.
Kelloway, Warwick Freeman, St. John's, Nfld.	B.A.	Philosophy	The Ethics of Achievement.
MacLennan, Malcolm, Scotstown, P.Q.	B.A.	English	Crime and Criminals in English and French Memoirs.
Nichol, Jean, Montreal, P.Q.	B.A.	History	James Murray, the Military Initiator of British Civil Government in Canada.
Read, Mary Gwendolen Ellery, Sherbrooke, P.Q.	B.A., Bishop's	English	The Treatment of Education in the Novels of Geo. Eliot, Geo. Meredith and Thomas Hardy.
Read, Stanley Merritt Ellery, Sherbrooke, P.Q.	B.A.	English	English Journalism in Canada from the Middle of the Eighteenth Century to the Beginning of the Twentieth.
Sharples, Alice Murray, Quebec, P.Q.	B.A.	French	"Théatre en Liberté" de Victor Hugo.
White, Harold, Ethel, Ontario	B.A.	English	The Treatment of Immortality by Nineteenth Century Poets.

The following were granted the degree of M.S.A. in 1925:

Name and Address	Previous Degrees and Where Obtained Where Obtained	Subject	Title of Thesis
Davidson, James Glen, Kelvington, Sask	B.A., B.S.A., Sask	Agronomy	The Elimination of Error in Taking Yields of Forage Crops.
Eaton, Ernest Lowden, Upper Canard, N.S	B.S.A., Tor	Agronomy	The Effect of Frost on Germination of Corn.
Hanlan, Leamon Houston, Kapuskasing, Ont	B.S.A., Tor	Agronomy	The Variation in Varieties and Mixtures of Cereal and Forage Crops with Respect to Border Effect in Comparative Crop Tests.
Lods, Emile Albert, Montreal, P.Q	B.S.A.	Agronomy	A study of the Influence of Electric Light Used to Supplement Daylight on Oats Grown as Breeding Material in the Greenhouse during the Winter Season.

The following were granted the degree of M.Sc. in 1925:

Allan, John Maynes, Halifax, N.S	B.Sc	Chemistry	(a) Preparation of Compounds Preparatory to a Study of the Mechanism of Vulcanisation Catalysis. (b) Acid Numbers of Raw Rubber Samples.
Armstrong, Thomas, Montreal, P.Q	B.S.A.	Entomology	The Description, Habits, and Life History of the Onion Maggot, Hylemyia antigua Meig., with Special Reference to its Control in the District of Montreal, Quebec.
Atwell, Ernest Alleyne, Essex, Ontario	B.S.A.	Plant Path	Studies Concerning Tobacco Mosaic.
Baker, Alexander Douglas, Winnipeg, Man	B.S.A.	Entomology	A Comparative Study of the Male Genitalia of the Canadian Pentatomidae.
Barnes, William Howard, Montreal, P.Q	B.Sc.	Chemistry	The Thermal Constants of Carbon Dioxide.
Becking, John Albert, Sault Ste. Marie, Ont	B.Sc.	Ore Dressing	Sizing on Sieves—A Critical Study of the Interrelation of the Different Factors in Sieving.
Bostock, Hugh Samuel, Monte Creek, B.C	B.Sc	Geology and Mineralogy	A Petrographical Study of the Dyke Rocks of the Anyox District.
Brooke, Richard Owen, Suffolk, England	B.S.A., Tor	Chemistry	A Study of the Fixation of Phosphates in Soils of Different Types.
Davidson, Stanley Cecil, Montreal, P.Q	B.Sc.	Geology and Mineralogy	Petrographical Study of Rocks and Ores from the Sullivan Mine, Kimberley, B.C.
Elvidge, Arthur Roland, Montreal, P.Q	M.D.	Physiology	The Injection of Quartz and Other Particles into the Blood Stream.

Name and Address	Previous Degrees and Where Obtained	Subject	Title of Thesis
Evans, Arthur Burke A., Birmingham, England	B.Sc., Birm	Chemistry	(a) Observations on the Swelling of Rubber. (b) Study of the Chemistry of Certain Vulcanisation Accelerators.
Fan, Pen-Chung, Shanghai, China	B.Sc., Nanyang	Electrotechnics	Electric Power Transmission of Alternating Currents at High Voltage.
Fowler, Grant McAllister, Fort Coulonge, P.Q	B.A	Chemistry	A Method for the Determination of Halogens in the Side Chains of Aromatic Organic Compounds.
Green, Frederick, Montreal, P.Q	M.D	Physiology	Problems in Immunity Reactions with Special Reference to the Wassermann Reaction.
Hachey, Henry Benedict, West Bathurst, N.B	B.Sc., St.Fr.Xa	Physics	Resonance Radiations.
Harrison, Kenneth Archibald, Mangerville, N.B	B.S.A., Tor	Plant Path	Studies Concerning Bean Anthracnose.
Illievitz, Abraham Bernard, Montreal, P.Q	M.D	Biochemistry	The Relation of Kidney Activity in Diabetes Insigridus to the Theories of Urine Excretein.
LeNeveu, Arthur Philip Cooke, Winnipeg, Man	B.Sc., Man	Electrotechnics	Transmission of Power by Alternating Currents at High Voltage.
McNally, William James, Ottawa, Ontario	B.A., M.D., Dal	Physiology	Experiments on Labyrinth and Equilibrium.
Muir, Allan Kenneth, Burford, Ontario	B.Sc	Ore Dressing	The Settling of Very Finely Divided Material in Water, and Certain Dilute Alkali Solutions, with Especial Reference to Decantation Methods in Ore Dressing.
Powell, Allan Trew, Ottawa, Ontario	B Sc'	Metallurgy	The Economic Production of Titanium Oxide from Titanic Solutions Containing Iron.
Robertson, Carol Edna., Montreal, P.Q	B.Sc	Chemistry	Conductivities of Aqueous Solutions of Sulphur Dioxide.
Robison, Samuel Clifford, Detroit, Mich., U.S	B.S.A., Alta	Chemistry	Isolation and Identi cation of the Flavoring Principle in Maple Sugar.
Sweny, George William, Victoria, B.C	B.Sc	Metallurgy	The Extraction of Copper from its Ores by Simultaneous Leaching and Electrolysis.
Vanterpool, Thomas Clifford, Saba, D.W.I	B.S.A	Plant Path	The Stripe or Streak Disease of Tomato in Quebec
Wilson, Harold Stockdale, Indian Head, Sask	B.Sc	Geology and Metallurgy	The Geology of the Tin Deposits of Cornwall.

The Governor General's Medal, for the most important original research, was awarded to Dr. John H. Mennie, of Vancouver, for his thesis in Physical Chemistry.

SCHOOL OF COMMERCE

We have at the end of this Session to record some matters of especial interest in connection with the development of our curriculum. One is the unification of the Arts and Commerce Honor Courses in Mathematics and the consequent throwing open to Arts students of our classes in Actuarial Science. Another is a notable extension of our work in Economics, which has now been made to embrace the whole of the Honor programme of the Faculty of Arts. The latter change is particularly important since it qualifies Commerce graduates, who have specialized in Economics, for following the Post Graduate Courses in this subject, and thus enables them to obtain the degree of M.A. one year after obtaining that of B. Com. The former derives its interest from the fact that it satisfies the Heads of our Life Insurance Companies and renders them more disposed to receive Commerce graduates into their Actuarial Departments.

We have further to record that an agreement has been entered into with the Association of Accountants of Montreal, whereby Association candidates are to take the same final examinations as those set for McGill Commerce Graduates proceeding to the Diploma of C.A. The effect of this will be to bring about a unification of standards among the various institutions preparing candidates for this important diploma. One consequence of this agreement is that our courses in Commercial Law have been made to include all the subjects of interest to members of the above mentioned Association. These Courses will, moreover, be duplicated in the evenings for the benefit of the Association's students.

The new Courses to be given next Session in the Third Year, are those on Technology and on Business Psychology for both of which full preparation has been made.

With the 1925 graduating class of 45, the Third Year curriculum of the School of Commerce has been brought to a conclusion. Henceforth, all students will fall under the 4-Year scheme, three years of which will be in operation next Session, and all four years in the 1926-27 Session. Next Session will, in consequence, be without a Graduating Year.

Respectfully submitted,

R. M. SUGARS,
Director-Secretary.

SCHOOL FOR SOCIAL WORKERS

The year just completed has been an exceptional one in the history of the School. Not only was there a larger number of students than in any previous year, but with few exceptions they have all been two year students, instead of the usual majority of one year students which has existed in the past. In the past three years the registration has increased from 9 to 21 full-time students.

WASTAGE.—While there has been more than ordinary interest and enthusiasm in the work of the students, there has been some wastage, as follows:

Out of 21 students,

3 failed in one subject,
1 failed in two subjects,
1 failed in three subjects, and
2 dropped out at Christmas.

EXTENSION COURSES.—The extension courses given throughout the session were well attended. 34 members of the Junior League took a course of 10 lectures in Social Work. 44 registered for the course of 24 lectures given for social workers in the agencies. The total registration for the popular series on Social Problems was 337.

STUDENTS' FIELD WORK.—The field work has been conducted in a very satisfactory manner by Miss May Reid, Supervisor of Field Work and Instructor in Social Case Work. The conference with the representatives of the social agencies has grown from a single meeting held in the autumn into a weekly conference. Mr. Clarke of the Family Welfare Association acted as Chairman and Miss Reid led the discussions. For a month following examinations the students had a special opportunity to translate into action what they had been shown during the year. Through the ready co-operation of the Family Welfare

Association the students were given a number of cases which were handled by them under the direction of Miss Reid. This proved to be such a valuable experience for the students that it is likely to be continued in the future. The various agencies have co-operated throughout the year in giving the students a practical experience in social work that parallels their study in the school. Each second year student gives two whole days each week to this type of training—learning by doing.

STAFF ADDITIONS AND CHANGES IN THE CURRICULUM.—Dr. W. E. Gettys, who has been appointed Assistant Professor of Sociology in the Faculty of Arts, is teaching the course in Child Welfare. Students of the School of Physical Education also take this course. The coming of one to the University who is a scholar, a fine teacher, and in possession of much practical experience in the social field, increases directly and indirectly the effectiveness of the school.

A new course in the Faculty of Arts, The Family, is given by Dr. Gettys, and this course is taken by the students of the school and a number of those in the School for Graduate Nurses. It affords a good background for case work.

Practical Legal Problems, a course on the administration of the law, has been inaugurated by Professor Smith, of the Faculty of Law. He received valuable assistance from Mr. George H. Corbett, Secretary of the Society for the Protection of Women and Children.

SCHOLARSHIPS.—The scholarships donated by the Montreal Women's Club, the Notre Dame de Grace Women's Club and the Rotary Club, were held respectively by Miss Ellen Barr, Miss Annie Vail and Miss Mary Monk. These scholarships fulfil a much needed function in the life of the school, both in attracting a higher type of student and by enabling worthy persons to enter a career of great usefulness.

THE ALUMNAE.—The staff, and members of the committee of the School are very grateful for the loyalty and continued interest on the part of its graduates. An Alumnae Society has recently been formed under the presidency of Miss Thelma Williams. It is alert and active in furthering the interests of the school.

GRADUATES AND PRIZE WINNERS.—There were six graduates at the May Convocation. The Dr. H. R. Y. Reid Prize for the graduating student ranking highest in the Diploma Course was awarded to Miss Mary Coughlin, the prize for the highest standing in the Certificate Course to Mrs. Mary Craig, and the prize for the highest standing in the First Year of the Diploma Course to Miss Annie Vail.

There is a steady demand for graduates of the school in agencies in the city and elsewhere. All this year's graduates are engaged in social work.

Respectfully submitted,

C. A. DAWSON,
Director.

SCHOOL FOR GRADUATE NURSES

Changes in Staff

The most important development in the work School during the past session was the addition to the full time staff of Miss Anne Slattery, B.A., as lecturer in Public Health Nursing and Assistant to the Director of the School.

New Course of Study

During the session of 1924-25 a new course of study was offered: Supervision in Schools of Nursing. This was arranged to meet the need of nurses not qualified to enter the course in Administration, but wishing to prepare for positions as supervisors or assistants in schools of nursing. Four students were glad to avail themselves of this opportunity.

Beginning with the session 1925-26, the course in Teaching in Schools of Nursing will lead to a diploma, and require two years' work, unless the student brings advanced credit from a university or normal school. A certificate of partial completion will be given on the successful completion of one year's work.

Registration

For the session 1924-25, seventeen full time students registered in the School. They were divided as follows:—

Course A.—Public Health Nursing; registration, seven.

Course B.—Teaching in Schools of Nursing; registration, six.

Course D.—Supervision in Schools of Nursing; registration, four.

Besides these full time students twenty partial students registered for various courses in the School.

Field Work

The Montreal and Outremont Departments of Health, the local Hospitals, the Royal Edward and Bruchesi Institutes, the Victorian Order of Nurses, the Child Welfare Association and other Social Agencies, have very kindly, as in the past, continued to give our students opportunities for observation and practice.

Scholarships

Ten students held scholarships. One was given by the Association of Registered Nurses of the Province of Quebec, one by the Royal Victoria Hospital, two by the Montreal General Hospital, one by the Hospital for Sick Children, Toronto, one by the Hamilton General Hospital, and four by the Victorian Order of Nurses.

Certificates

Seventeen students received their certificates at the Convocation on May 29th. Five of these passed their examinations with distinction.

One student, Miss Constance Brewster, B.A., Brantford, Ont., was awarded a diploma in Teaching in Schools of Nursing, because of her advanced standing from her previous courses in Arcts and in the Faculty of Education, Toronto University.

Prizes

Dr. Helen R. Y. Reid's prizes for highest standing in Public Health Nursing and Teaching in Schools of Nursing were awarded respectively to Miss Edna Barnes, of Montreal, and Miss Mabel Cunningham, of Millbrook, Ont.

Extension Course

During the second term of the session an Extension course of twelve lectures for undergraduate nurses, was arranged at the request of the Superintendent of the Montreal General and the Royal Victoria Hospitals. Six of these lec-

tures were on Public Health Nursing and six on Social Service work. 168 nurses, both undergraduate and graduate, were enrolled for these lectures.

During the week, May 18-23, at the request of the Private Duty Section of the Association of Registered Nurses of the Province of Quebec, an Institute was arranged for graduate nurses. Eighteen nurses enrolled for this course.

Past Students

The demand for graduates from the School is still very large, much greater than we can supply. Twenty-six of the eighty-two graduates of the School are in positions in Montreal.

Respectfully submitted,

F. M. SHAW,
Director.

LIBRARY COMMITTEE

The Librarian herewith submits the report of the Library Committee for the year ended June 30, 1925. The quarterly reports to Corporation are made for three months ending March 31st, June 30th, September 30th, and December 31st. The statistics of the annual report, which covers the period from July 1st to June 30th, are a cumulation of these.

Library Committee.—The Library Committee consisted for this year of Sir Arthur William Currie, G.C.M.G., K.C.B., LL.D. (Chairman); Francis McLennan, B.C.L., LL.D., K.C.; C. J. Fleet, B.A., B.C.L., K.C.; William Douw Lighthall, LL.D., K.C.; Frederick Cleveland Morgan, M.A.; Dr. F. A. C. Scrimger, V.C., B.A., M.D.; Eugene Lafleur, D.C.L., LL.D., K.C.; Charles Edmund Fryer, M.A., Ph.D.; Ernest Brown, M.Sc., M.Eng.; Herbert Arthur Smith, M.A.; R. M. Sugars, M.A., A.I.A.; C. F. Martin, B.A., M.D.; C. F. Wylde, C.B., M.D.; R. F. Ruttan, M.D., D.Sc., F.R.S.S.; A. S. Eve, C.B.E., M.A., D.Sc., F.R.S.C., F.R.S.; Ethel Hurlbatt, M.A., T.C.D.; G. R. Lomer, M.A., Ph.D., (Secretary).

Constitution of Library Committee.—According to the Statutes of the University, the Library Committee is a committee of Corporation constituted as follows: The Principal, chairman, ex-officio; the Librarian, secretary, ex-officio; and members representing the Governors, two; Corporation, four; Graduates, one; Faculty of Graduate Studies and Research, one; Faculty of Arts, two; Faculty of Applied Science, two; Faculty of Medicine, two; Faculty of Law, one; Royal Victoria College, one.

Library Progress and Needs.—The immediate needs of the University Library are space and endowment. If the Library is to keep pace with the gifts which it receives and the demands for service which are made upon it, it must have more room and more money. The increase in the number of gifts and the natural growth of the Library, as indicated by the statistics of the Loan Department, place upon the University an obligation to make provision for a development that is to be expected and has been experienced in other growing institutions. The Redpath Library will pass the 200,000 volume mark in the autumn of 1925 and will take its place definitely among the larger and more valuable collections of the continent. In available space, in the number of assistants, and in annual income it is far behind American libraries of similar size and rank. No university has yet found it economical to curtail the development of its library and any diminution of funds in this department of the university has always been immediately felt in all those departments of the university which depend upon the library for books or periodicals.

The growth of the endowed collections, such as the Blackader Library of Architecture and the Blacker Library of Zoology, has occupied practically all the allotted space in the Extension, and the accession of the whole collection of books from the Natural History Society has placed an unexpected load upon the rapidly diminishing amount of reserve shelving. It must be remembered that, apart from unexpected additions of this sort, the normal shelf space required annually by the Library is 600 feet.

With regard to the Staff, the present number is inadequate to carry on the expanding work of the Library. It must be remembered that Inter-Library Loans, the collection and distribution of University Publications, and the preparation of the University Bibliography, which are all recent developments of Library work, involve time, and that there is no department of the Library in which there is not accumulated work waiting to be done. The Librarian has pointed out before this that the scale of Library salaries is far below that in American libraries of the same size or in some of the other Canadian university libraries. A definite schedule of salaries arranged by departments, with a small annual increase to a maximum, seems to be the most satisfactory plan. It must be remembered that the Library is the only department of the University in which work is carried on regularly in the evenings throughout the session. The Library is open twelve hours daily (Saturday, 9—5, eight hours) and this must be kept in mind in calculating the number of assistants required.

Cataloguing and Filing.—The statistics for this department for the year 1924-25 are as follows:

Accessions catalogued:	1924-25	1923-24
Gifts	4,139	3,780
Purchases	7,899	9,128
Exchanges	218	195
Accessions not included above	593	360
Cataloguing not included above	2,460	1,287
Books reported lost or withdrawn	207	570
Books returned	23	24
Total books lost or withdrawn	184	546
Total accessions	15,125	14,204

The total number of books in the University Library is estimated as follows:

In Redpath and Departmental Libraries	191,875
In Medical Library	38,142
In the Travelling Libraries	9,963
Total	239,980

The total number of cards filed in the catalogue and departmental libraries was 40,070.

The Spanish section has been increased by the addition of 200 volumes in Spanish literature.

Binding.—In spite of trial orders placed with several new firms, the Library has not yet been able to find any bindery whose work is perfectly satisfactory in every respect. The University binders continue to do practically all the repairs and a certain amount of regular binding in addition. The increased cost of binding and the large number of books to be bound have necessitated using special cardboard boxes for preserving the less valuable periodicals for the present, as the binding appropriation is inadequate to provide ordinary binding.

In the University Library 1,248 books were repaired and 2,246 books were bound, and in the Medical Library 179 books were repaired and 1,384 books were bound between July 1, 1924 and June 30, 1925.

Apart from the binding approximately 1,700 pamphlet covers were used and 250 periodical binding cases. 279 photographs were mounted. During the past year the publications of the League of Nations have been arranged in special covers and made available for consultation.

Reading Room.—During the year the Reading Room of the Redpath Library was open for 285 days, 5 half-days, and 149 evenings. The attendance in the Redpath Reading Room, the Law Library, and the Medical Library was as follows:

ATTENDANCE

Redpath	1924 July-Sept.	1924 Oct.-Dec.	1925 Jan.-Mar.	1925 April-June	Total
Readers) Men	2,025	10,764	9,970	7,076	29,835
) Women	583	4,985	4,596	3,683	13,847
Visitors	232	469	220	401	1,322
Law Library	236	1,809	1,805	946	4,796
Medical Library	889	3,438	3,972	3,162	11,461
Totals	3,965	21,465	20,563	15,268	61,261

Circulation and Reading Room.—The statistics of the circulation of books, excluding inter-library loans, postal service, and Travelling Libraries, are as follows:

CIRCULATION

Redpath	1924 July-Sept.	1924 Oct.-Dec.	1925 Jan.-Mar.	1925 April-June	Total
Reading Room	3,297	9,762	11,387	7,753	32,399
Home Use	2,575	4,591	5,540	6,455	19,161
Law Lib. Reading Room	69	828	728	330	1,955
" " Home Use	75	452	328	330	1,185
Medical Library	1,014	2,506	2,796	2,214	8,530
Totals	7,030	18,139	20,779	17,282	63,230

The crowded condition of the Reading Room, to which attention was called in the last report, has increased and the available space is not sufficient to accommodate students wishing to use the Library. The provision of a freshmen reading room in the new Arts Building, or temporarily

elsewhere on the Campus, will become a necessity next session if the registration increases.

Special and Departmental Libraries.—Continued progress has been made with the Blacker Library of Zoology, both in completing the cataloguing cards and in cataloguing the more complicated sets of periodicals. A number of large sets of periodicals and proceedings of natural history societies (English, French, German, and Spanish) have recently been added to this collection. It is a particular pleasure to record an additional gift of $7,321 from Mr. and Mrs. R. R. Blacker for the purchase of special and rare items. Among these may be mentioned 162 original paintings of the birds and fishes of India by Lady Elizabeth Gwillim, a number of large drawings by George Collins and John Edwards, the specially illustrated edition of Pennant's Arctic Zoology, and Meyer's Illustrations of British Birds, with original drawings. The catalogue in the special Reading Room of the Blacker Library of Zoology has been increased by the addition of cards for most of the zoological books in the General Library, as well as cards for the books catalogued during the year in the Blacker Library.

The Emma Shearer Wood Library of Ornithology has been enriched by a number of scarce volumes purchased by Dr. Casey A. Wood in the course of his travels in India, and the General Library has obtained from him several fine examples of manuscriptions from Ceylon. The collection of autographs and original letters of ornithologists has been arranged and cards have been made for all the writers. It is a matter of regret that, owing to the retirement of Miss Margaret S. Mackay from the Library Staff, it has thus far been found impossible to complete for the press the revision of Dr. Wood's manuscript of his annotated catalogue of ornithological periodicals.

To the Blackader Library of Architecture have been added a number of fine illustrated books, as well as some new periodicals, and a contribution from the Department of Architecture has been a welcome addition to its resources. The Catalogue of Books on Fine Arts and Architecture is being brought up to date and it is hoped to print it during the summer. This collection is administered in close co-operation with the Library of the Art Association to the advantage of both.

The Baillie Library of Chemistry has had a successful year and the wisdom of its foundation has been amply demonstrated. It has proved of inestimable value to both the staff and the students in the Chemistry Building.

Library Inventory.—By order of the Bursar an inventory was made of the books, periodicals, and manuscripts in the University Library of which the following is a summary: Redpath Library, with Extension, $936,112; Medical

Library, $230,000; Law Library, $64,717; Physics Library, $7,640; Baillie Library of Chemistry, $6,700; Department of Architecture Library, $1,000; Department of Botany Library, $3,150; Lyman Collection of Entomology, $3,500. Allowing for binding and accessions to May 31, 1925, the total replacement value of the University Library as a whole is $1,274,819.

Catalogue of Scientific Periodicals.—The Catalogue of Scientific Periodicals in Canadian Libraries has been distributed free to the co-operating libraries and to the Honorary Advisory Council for Scientific and Industrial Research, and has by its usefulness justified its publication. Circulars have been sent to libraries on this continent and in England, and to date 96 copies have been sold. The Catalogue, while chiefly of use in Canadian libraries, has been found of value to the compilers of the new National Union List of Serials now in preparation in the United States, and copies have been purchased by libraries and scientific societies in the United States, England, Holland, Queensland, and the Philippines.

Library School.—Owing to the small registration in the Library School last year, the Library Committee decided to hold the Summer School every second year. It is to be pointed out, however, that the only satisfactory solution of the library training problem would be a regular sessional course in co-operation with the Faculty of Arts.

Inter-Library Loans.—Books have been borrowed from the following institutions: Yale University Library; Library of Congress, Washington; Toronto University Library; Macdonald College Library; University of Chicago Library; Harvard College Library; Massachusetts Institute of Technology; Boston Public Library; Lloyd Library, Cincinnati; Arnold Arboretum, Harvard University; Queen's University Library; Library of the Department of Agriculture, Washington; British Library of Information, New York; University of Pennsylvania Library; Department of Agriculture, Ottawa; University of Missouri Library, Columbia; American Academy of Arts and Sciences, Boston; Columbia University, New York; Geological Survey Library, Ottawa.

The University has supplied books and reference material to the following institutions, as well as to individuals: Acadia University Library; Macdonald College Library; Queen's University Library; Cornell University Library; Library of the State University of Iowa; University of British Columbia Library; University of Manitoba Library; Alberta University Library; Ottawa Public Library; Toronto University Library; St. John Public Library; Geological Survey Library, Ottawa; Wisconsin University Library; Library of University of King's College, Halifax; University of Ottawa Library.

Library Museum.—The Library Museum has not been idle for a single day during the past year and exhibits have been changed with the least possible delay. The following exhibits have been open to the public without charge:

Date	Exhibit	Days Open	Visitors
July 2-Oct. 11, 1924	Illuminated Manuscripts.	79	232
Oct. 18-Dec. 20, 1924	Children's Books	55	417
Jan. 8-Mar. 28, 1925	Archaeology of the Mediterranean	69	220
Apr. 13-June 30, 1925	European Travel	67	401
		269	1,270

These figures represent only visitors who signed the register and three times the number would more adequately represent the annual number of visitors.

The thanks of the Committee are due to the various friends of the University who have lent material for the above exhibits.

The Gallery of the Reading Room has gradually developed into the nucleus of a valuable archaeological museum. It contains, in addition to the Library collection, the Garstang Collection of archaeological material, and the Egyptian material from the Natural History Society Collection is in process of installation and will be exhibited in the autumn of 1925.

There has always been a close co-operation between the Library, the McCord Museum, and the Art Association in the matter of exhibits, and it is hoped that the session of 1925-26 will show a more definite organization of the various University collections and a new impetus given to the study of archaeology, both in the University and in the city.

Book Clubs.—The University Library is indebted, as in years past, to the McGill College Book Club and to the University Book Club for a number of volumes. The value of previous contributions of this sort has been realized in the preparation of exhibits and acknowledgement has always been made on the labels.

McGill College Book Club.—The Committee consisted of Dr. F. J. Shepherd, Dr. William Gardner, Dr. Stephen Leacock, Mr. George B. Fraser, Mr. Benjamin Dawson, Lt.-Col. George R. Hooper, and Dr. G. R. Lomer. During the past session this Club presented 117 volumes to the University Library.

The University Book Club.—The Committee consisted of Rev. R. E. Welsh (Chairman), Professor William Carless (Hon. Treasurer), Miss Eileen B. Thompson (Hon. Secretary), Mr. R. A. Batley, Professor George Latham, Mrs. J. M. Morris, Mrs. Walter Vaughan, Miss Laura A.

Young, and Dr. G. R. Lomer. During the year 1923-24 the membership amounted to 310. $1,833.20 was the total expenditure for books for the year and the circulation amounted to 13,461. It is a matter of satisfaction to note that the Club Room is appreciated by the members and that increased use is being made of it. During the year the Book Club presented 598 volumes to the Library. A number of volumes of fiction were also presented to the McGill Alumnae Library Committee for Hospital Libraries, the Y.M.C.A., the Y.W.C.A., and McGill University Travelling Libraries.

University Publications.—Owing to the increase of exchanges it has been found necessary to raise the number of reprints from 200 to 300 copies of each paper. For this same reason a number of the earlier papers have gone out of print. The available fund is inadequate for the increasing publications of members of the Staff and a special appropriation has been asked for to meet the expenses of the coming session. It is important, however, for the general interest of the University, that this branch of its publicity and of its contribution to general education should be more generously endowed.

During the year covered by this report the following publications were added to the series and were distributed to the institutions and individuals on the University Exchange List:

SERIES I—LECTURES AND ADDRESSES

No. 8	Currie, Sir Arthur	Canada needs a super-civil service.
9	Smith, Herbert A.	Judicial control of legislation in the British Empire.

SERIES II—BOTANY

No. 28	Scarth, G. W.	The toxic action of distilled water and its antagonism by cations.
29	Lloyd, F. E.	The vegetation of Canada.
30	Lloyd, F. E.	Conjugation in Spirogyra.
31	Scarth, G. W.	Can the hydrogen ion concentration of living protoplasm be determined?

SERIES III—CHEMISTRY

No. 44	Maass, O., and Hiebert, P. G.	The properties of pure hydrogen-peroxide, Iv. Action of the halogens and halogen-hydrides.
No. 45	Logan, J. F.	The protein matter of bile.
46	McKinney, J. W.	The constitution of kerogen.
47	Maass, O.	Molecular attraction and molecular combination.
48	Johnson, F. M. G. and Larose, P.	The diffusion of oxygen through silver.
49	Dolid, J.	Simple device for sodium flame.
50	Whitby, G. S., and Matheson, G. L.	Some heavy-metal salts of disubstituted dithiocarbamic acids.
51	Macallum, A. D. and Whitby, G. S.	Note on the molecular refraction of natural and methyl rubber.
52	Hatcher, W. H., and Holden, G. W.	Hydrogen peroxide as an oxidising-agent in acid solution, II.
53	Maass, O., and Morrison, D. M.	Effect of molecular attractions on the tota pressure of a gas mixture.

54—Whitby, G. S. ..... The acidity of raw rubber.
55—Maass, O., and Hiebert, P. G. ..... The properties of pure hydrogen-peroxide, V.
56—Maass, O., and Wright, C. H. ..... Molecular attraction and velocity of reactions at low temperature of unsaturated hydrocarbons.
57—Maass, O., and Waldbauer, L. J. ..... The specific heats and latent heats of fusion of ice and of several organic compounds
58—Munro, L. A., and Johnson, F. M. G. ..... The absorption of vapors by alumina.
59—Whitby, G. S., and Jane, R. S. ..... The electro-viscous effect in rubber sols.
60—Steacie, E. W. R., and Johnson, F. M. G. ..... The viscosities of the liquid halogens.

SERIES IV—ENGINEERING

No. 3—von Abo, C. V. ..... Secondary stresses in bridges.

SERIES V—GEOLOGY, MINERALORY AND METALLURGY

No. 10—Graham, R. P. D. ..... Mines and mineral deposits of Canada.

SERIES VI—HISTORY AND ECONOMICS

No. 7—Bovey, Wilfrid ..... McGill and her builders.
8—Jonnson, W. S. ..... The Rebellion of 1837.

SERIES VIII—MEDICINE

No. 24—Abbott, M. E. ..... New accessions in cardiac anomalies.
25—Abbott, M. E. ..... Lectures on the history of nursing.
26—Abbott, M. E., and Dawson, W. T. ..... The clinical classification of congenital cardiac disease.
27—Waugh, Theo. R. ..... The nature and classification of the Leukaemias.
28—Shepherd, F. J. ..... The first medical school in Canada.

SERIES IX—MATHEMATICS

No. 2—Eve, A. S. ..... Dizzy arithmetic.

SERIES X—PHYSICS

No. 25—Hachey, H. B. ..... The rotation of melting ice suspended in benzine.
26—Bieler, E. S. ..... The large-angle scattering of a-particles by light nuclei.
27—Shaw, A. N. ..... A note on the formation of heavy ice in a cryophorous.
28—Pye, H. T ..... The optical projection of the tracks of alpha-particles.

SERIES XII—REPORTS

No. 1—Governors, Principal and Fellows. ..... Annual Report (including Library Report, 1923-24).

SERIES XIII—ART AND ARCHITECTURE

No. 1—Traquair, Ramsay ..... The old architecture of the Province of Quebec.
2—Traquair, Ramsay ..... The buildings of McGill University.

Gifts.—The total number of gifts, as indicated in the list appended to this report, amounted to 4,139 volumes. Special mention should be made of the following:

Gifts of Funds.—$7,321 from Mr. and Mrs. R. R. Blacker for the special purpose of paying for rare and expensive manuscripts, sets of periodicals, and volumes which Dr. Casey A. Wood kindly selected for the Library

during last summer; from Miss Isabella C. McLennan, $300 for the purchase of books for the Travelling Libraries, and $700 to cover the deficit in the Travelling Library Department from 1920 to 1925; from Lady Roddick, $250 for the Peter Whiteford Redpath and Jocelyn Clifford Redpath Book Fund; and from Dr. A. D. Blackader, $150 for the Blackader Library of Architecture.

Gifts of Books, Pictures, etc.—The Parliamentary Library of Sir Herbert B. Ames; a collection of volumes of prose and poetry, many of which are autograph copies, from Mr. George Iles; a Persian manuscript, 2 Japanese miniatures (9th century A.D.), an illuminated leaf of Persian late 15th century manuscript, an autograph photograph of P. Hebert, an autograph sketch by A. H. Robinson, and a collection of pamphlets and magazine articles on art, from Mr. F. Cleveland Morgan; a collection of photographs of the Carthaginian Excavations, from Major F. C. Shorey; 252 volumes from the Estate of the late Professor Paul T. Lafleur; a collection of American and English autograph letters and a collection of autograph photographs from Mrs. J. B. Learmont; a medal commemorating the Nestorian Expedition of Dr. Frits Holm, from Mrs. Frits Holm; a collection of 30 English parchment documents, from Mr. J. K. Smith; and a collection of over 2,000 autograph letters of ornithologists, 87 paintings of Fijian birds, and many volumes, periodicals, catalogues, and reprints on ornithology from Dr. Casey A. Wood, as well as numerous presentations from Dr. and Mrs. Wood to the General Library and to the Blacker Library of Zoology.

Also a number of volumes from: Dr. F. D. Adams, Mr. E. T. Adney, the Amicable Society of Blues, Dr. H. T. Barnes, Mr. G. S. Bell, Mr. E. L. Bieler, Dr. A. D. Blackader, Major L. C. M. Blacker, Mr. Basil Blackwell, Sir Robert Borden, Mrs. A. A. Bowman, Professor J. W. Bridges, Sir Stopford Brunton, Cambridge University Press, Carnegie Endowment for International Peace (Washington) and Division of Intercourse and Education (New York), Clan McNeill Association of America, Mr. J. O. M. Clark, Library of W. A. Clark, Jr., Mr. F. J. Cockburn, Consulate Generals of Denmark, Germany, and Norway (Montreal), Japan (Ottawa), and the Government of France, Mr. W. J. H. Craddock, the Czechoslovak Consulate General, Montreal, Royal Danish Consulate General of Canada, Dr. C. A. Dawson, Dr. W. Bell Dawson, Professor C. M. Derick, L'Abbé Azarie Couillard Després, Mrs. F. G. Dossert, Dr. A. S. Eve, The Explorers Club, New York, Consulate of Finland, Montreal, Professor R. de l. French, Mr. Norman H. Friedman, Dr. C. E. General Education Board of New York City, Miss C. E. Fryer, General Education Board of New York City, Miss J. M. Gordon, Miss Mary Gould, Mr. W. C. Graham, Mrs. J. Harkness, Mr. G. D. Henderson, Mr. C. H. Herbert, Mr.

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Respectfully submitted on behalf of the Committee,

G. R. LOMER,

Secretary to the Committee.

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Modern Languages	4
Molson Fund	65
Murry Fund, The Clark	10
Music	107
Navigation	8
Oriental Languages	12
Physics	165
Physics Fire Replacement Fund	3

Psycho Physics 61
Redpath Fund, The P. W. & J. C. 12
Redpath Fund, The W. W. 178
Roddick Fund, The Lady 10
Romance Languages 76
Royal Victoria College 24
Royal Victoria College Caution 8
School for Graduate Nurses 31
School of Commerce 94
Social Science 74
Applied Science 35
Architecture 50
Baillie 220
Blackader Memorial Fund 83
Blacker 1734
*Blacker Special 703
Botany 24
Caution 54
Civil Engineering 7
Classics 86
Comparative Literature 7
Dawson Memorial Fund, The Sir William 13
Douglas Fund, The Dr. J. D. 140
Drummond Fund, The Dr. W. H. 49
Economics 75
Economics Special 1
Education 62
Electrical Engineering 9
English 142
Fine Arts 64
Gardner Fund, The Dr. William 2
General 2202
Geodesy and Surveying 9
Geology and Mineralogy 47
Germanic Literature 91
Germanic Literature Special 113
Hersey Fund 6
Hickson Fund, The Lady 126
*Special fund for the purchase of rare Zoological & Ornithological books.
Torrance Fund 13
Travelling Libraries, Theology 28
War Literature 2
Wood Fund, The Col. Casey (For the E. S. Wood Library of Ornithology) 71

EXCHANGES

Abo Akademi 2
Bodelian Library 7
Boston Society of Natural History 3
Brown University 1
California University 14
Cape Town University 1

Chicago University	4
Cleveland Public Library	3
Colliery Guardian	1
Columbia University	25
Columbo Museum, Ceylon	1
Connecticut Academy of Arts and Sciences	3
Copenhagen, Kongelige Danske Videnskabernes Selkabs	25
Cornell University	1
Crearer (John) Library, Chicago	1
Edinburgh Botanical Society	6
Edinburg University	2
Glasgow University	4
Harvard University	6
Illinois University	14
Iowa University	3
John Rylands Library, Manchester	1
Latvia University	5
Library Bureau of Railway Economics	1
Lloyd Library	1
London University	3
Manchester University	6
Melbourne University	1
Michigan University	8
Minnesota University	1
O'Brien, A. H., Esq.	1
Ohio University	8
Pennsylvania University	11
Princeton University	5
Queen's University, Kingston	3
Revue Trimestrielle Canadienne	3
Royal Geographical Society	2
St. Andrews University, Scotland	5
Smith College	1
Smithsonian Institution	3
South African University	1
Stockholm, Geological Förening	2
Upsala University	4
Wisconsin University	3
Yale University	12
Donations	4,139
Purchases	7,899
Exchanges	218
Total	12,256

TRAVELLING LIBRARY REPORT, 1924-1925

The report for the year 1924-1925 shows a slight increase. 126 libraries were sent to 70 places, and there were 20 renewals with fees. The largest number of libraries were distributed in Quebec—60 libraries to 34 places, and the public libraries at Sherbrooke, Knowlton, and Waterloo receive libraries regularly from us.

This department was again called upon to help in the extension work of the University by sending a library to Shawinigan Falls for the use of Dr. Tait's students in psychology. A library on English literature was supplied for a group of students at Brandon College, Manitoba, and a teachers' club at West Kildonan, Manitoba, received one for the study of educational methods, Canadian literature, etc.

The number of applications for libraries from schools in this province was slightly higher, but we cannot understand why it was not much larger, since the Department of Education is willing to pay half the fee for any school which wants a travelling library.

There was something picturesque about an application received from a place with the suggestive name of Wreck Cove, N.S., a place so inaccessible that the books could only be sent by parcel post, as no express or freight reached it during the winter months. The schoolmaster expressed his great appreciation of the library, and the records returned were most satisfactory.

The Superintendent of Extension Service for Manitoba, Mr. S. Newton, wrote that places like Portage la Prairie and Virden had reported that our libraries had given satisfaction. Virden is now only taking five libraries from us at a time in place of ten, as their own library is being built up.

A falling off is to be expected in Nova Scotia, as the Department of Agriculture has to retrench, and decided not to pay any more fees for libraries to be sent to the Women's Institutes.

The library at Summerside, Prince Edward Island, keeps up a steady demand for our libraries, and also the one at Moncton, New Brunswick.

The libraries were sent to the following places in the different provinces:—

In **Quebec**:—Asbestos, Athelstan, Beauharnois, Beebe, Cap à l'Aigle, Chicoutimi, Coaticook, Compton, Cookshire, Danville, Dunham, Elgin Road, Flamand, Georgeville, Granby, Grand'mère, Hemmings Falls, Knowlton, La Gabelle, Montauban les Mines, Outremont, Parent, Percé, St. Gabriel de Brandon, St. Margaret's, St. Michel des

Saints, Shawinigan Falls, Sherbrooke, Stanstead, Three Rivers, Upper Melbourne, Verdun, Village Blier, Waterloo. 34 places, 64 libraries.

In **Nova Scotia**:—Bear River, Deep Brook, Digby, Guysboro', Hantsport, Hopewell, Lower Granville, New Glasgow, Otter Brook, St. Peter's, Sheet Harbour, Springhill, Tatamagouche, Wreck Cove. 14 places, 20 libraries.

In **Ontario**:—Almonte. 1 place, 2 libraries.

In **Manitoba**:—Brandon, Emerson, McConnell, Portage la Prairie, Selkirk, Virden, West Kildonan. 7 places, 19 libraries.

In **New Brunswick**:—Hampton Station, Moncton, Rothwell, Sackville, St. Stephen, Speerville, Sussex. 7 places, 11 libraries.

In **Prince Edward Island**:—Bedeque, Charlottetown, Georgetown, Kensington, Souris, Stanley Bridge, Summerside. 7 places, 14 libraries.

Of these 53 were general libraries, 35 were sent to public libraries, 10 to schools, 8 to Women's Institutes, 1 theological library to a ministerial association, and 13 to clubs—art, literary, etc., one library to a trail ranger's group, one to C.G.I.T., one to Tuxis Square Group, and one to a Sunday School. Two were special libraries, one sent to a student, and one to a returned officer in a lumber camp who wanted books on Russia to help him in writing short stories.

Two requests for travelling libraries from Alberta were referred to Edmonton, and three from Ontario to that province.

Gratifying letters of thanks came from many places, showing that the work done by this department had really been of value.

The lectures were not nearly as much used this year, only going out 78 times. This is because the lectures need renewing, and yet those who had them enjoyed them very much.

They were sent to the following places:—

In **Quebec**:—Birchton, Cookshire, Cowansville, Côte St. Gabriel, Fitch Bay, Georgeville, Melbourne, Mille Isles, Ormstown, Outremont, Quebec, Rawdon, Richmond, St. Lambert, Scotstown, Sherbrooke, Summerlea, Sutton, Sweetsburg, and Tonifobia.

In **Ontario**:—Ethel Union, Ross, Brussels.

In **Nova Scotia**:—Scotsburn.

Travelling Libraries

Purchases	381	Libraries sent out	126
Replaced	6	Renewals	10
	387	Stereoscopes	67
Donations	36	Pictures	9
	423	Lectures	78
Lost	18		
Withdrawn	9	Lists sent to 80 places	
	27		
	396		
Previously reported lost and returned	4	Volumes in Library	9963
Total	400		

Respectfully submitted,

E. G. HALL,

Lib. Trav. Lib. Dept.

MEDICAL LIBRARY

"The history of the Library is the history of the Faculty."
Prof. Hal.

The Library occupies the central part of the new building, the whole front of the second and third floors, as well as a portion of the first floor. On the third floor is the reading room, 76 x 24 feet, exceptionally well lighted, and capable of accommodating 75 readers. On this floor also are the journal room and private offices. The second floor contains the stack room, the book stacks having a total capacity of sixty thousand volumes.

A special feature of the Library is the journal collection, and every effort is being made to complete this section as far as possible and thus to increase the value of the reference department of the Library.

There is also a great duplicate collection of journals from which distribution can be made on the exchange basis.

There is no printed catalogue, but there has been compiled a comprehensive list of continuations with their inclusive volumes, and this list will be available for loan by out-of-town borrowers.

The Library is for the use of the members of the Teaching Staff, graduates of the Medical Faculty of the University, under-graduate students in the Faculty, graduates from other colleges showing proper credentials, and registered nurses. It is felt that graduates living at a distance are not aware of the fact that books may be borrowed from the Library on payment of carriage both ways.

The Library is closed on Sundays, but is otherwise open daily during term from 9.00 a.m. to 6.00 p.m., except Saturday, when it closes at 5.00 p.m., and after Convocation it is open from 9.00 a.m. to 5.00 p.m., Saturdays 9.00 a.m. to 10.00 p.m. During July and August it is closed all Saturday.

STATISTICS

July 1st, 1924—June 30th, 1925.

Readers	11,461
Books loaned—outside	5,450
" " —reading room	126
Journals loaned—outside	2,532
" " —reading room	422
Accessions	1,330
Binding	1,563
Cataloguing:—	
Recent accessions	1,932
Re-cataloguing	903
Replacements	9
Unbound (unaccessioned and incomplete) volumes of continuations	414
Total	3,258

The following journals have been subscribed to during the current year:

British journal of venereal diseases. The following German periodicals, after a cessation of 14 months, have been re-subscribed to:

Archiv für experimentelle Pathologie und Pharmakologie; Deutsche medizinische Wochenschrift; Beiträge zur klinischen Chirurgie; Deutsches Archives für klinische Medizin; Ergebnisse der Chirurgie und Orthopadie; Ergebnisse der Physiologie; Klinische Wochenschrift; Münchener medizinische Wochenschrift; Zeitschrift für Kinderheilkunde; Frankfurter Zeitschrift für Pathologie; Zeitschrift für physiologische Chemie.

This increases the number of current journals being received at the Library to 315.

We have this year received donations from the following.

Abbott, Dr. M. E.; Archibald, Prof. E.; Bainbridge, Dr. W. W., New York; Barker, Dr. L. F., Baltimore; Bassler, Dr. A., New York; Birkett, Dr. H. S.; Blackader, Dr. A. D.; Boston University Medical School; Bulkley, Dr. L. D., New York; Byers, Dr. W. G. M.; California,Univ. of—George Williams Hooper foundation; Canada, Government Publications, Ottawa; Canadian Medical Association Journal; Carnegie Institution of Washington, Nutrition laboratory, Boston; Carnegie hero fund commission; Coates, Capt. A. H.; Copeland, Miss E. E.; Cullen, Dr. T. S., Baltimore; Daland, Dr. Judson, Philadelphia; Delavan, Dr. D. B., New York; Duncan, Dr. Rex, Los Angeles; Eagleton, Dr. W. P., Newark, N.J.; Ely, Dr. L. W., Stanford Univ. Hospital; Finley, Dr. F. G.; Fox., Dr. Howard, New York; Goldbloom, Dr. Alton; Goodhart, Dr. S. P., New York; Hardisty, Dr. R. H. M.; Harvard University, (Huntington hospital); Henry, Dr. C. K. P.; Hess, Dr. A. F., New York; Howard, Prof., C. P.; Howell, Dr. W. B.; Hunner, Dr. G. L., Baltimore; Jenks, Dr. A. N.; Johns Hopkins University—School of hygiene and public health; Knopf, Dr. S. A., New York; Macaulay, Dr. J. L.; McCrae, Dr. Thomas, Philadelphia; McEachran, Duncan, Esq.; MacNevin, Dr. M. G., New York; Martin, Dr. C. F.; Medical Research Council; Montague, Dr. J. F., New York; New Jersey, State of—Dept. of health; Nelson, Dr. W. E.; Perrigard, Dr. E. N.; Peter Bent Brigham hospital, Boston; Queen's University, Kingston, Ont.; Redpath Library; Registrar's Office; Rockefeller Foundation, New York; Rolleston, Sir Humphry D., London; Russel, Dr. C. K.; Sauer, Dr. L. W., Evanston, Ill.; Shepherd, Dr. F. J.; Stanford University—Lane medical library, San Francisco; Stehle, Dr. R. L.; Struthers, Dr. R. R.; Thompson, Dr. I. M.; Todd, Dr. J. L.; Walker, Mr. J. T. A., London, E. C. 4; Waugh, Dr. T. R.; White, Dr. E. H.; Wilder, Dr. W. H., Chicago; Williams, Dr. C. M., New York; Williams, Dr. Huntingdon, Albany, N.Y.; Wood, Dr. C. A., Chicago.

DEPARTMENT OF BOTANY

The only change in the curriculum worthy of mention is in the course of General Physiology. A more rigorous quantitative treatment of the physico-chemical part of the subject both in lecture and laboratory was initiated during the past year and will be more fully developed in the ensuing year. The improved facilities for ultra-microscopic work mentioned in the previous report is also primarily for the advantage of this course.

Rearrangement of the Herbarium material, brought from the Redpath Museum, has been in progress for some time and the result will facilitate consultation.

Research completed during the year by the staff includes an important study of the mechanism of conjugation in Spirogyra (Professor Lloyd), physico-chemical work on gelatin as an analogue of living protoplasm and other protoplasmic studies (Professor Scarth) and a thesis on the taxonomy of local species of Cockleburr (Dr. Symons).

Appended is a list of publications during the year by members of the staff, amongst which mention may also be made of "Vegetation in Canada" (Professor Lloyd) a descriptive account for the British Association's visit to Canada last year.

Professor Derick's extension lectures continue to be well attended.

F. E. LLOYD.

DEPARTMENT OF CHEMISTRY

The number of Arts students going forward to advanced courses in Chemistry is yearly increasing, while the number of students in Applied Science entering the course in Chemical Engineering is small. The total number of students remains about the same. The need for a chair of Chemical Engineering or Industrial Chemistry is keenly felt.

The courses in Chemistry for premedical students in the Falculty of Arts require a special laboratory course in Organic Chemistry as a preparation for Pharmacology and Biochemistry. The want of laboratory space in the Chemistry Building made it necessary to provide the above laboratory course in the chemical laboratory of the Biological Building. An additional demonstrator has been added to the staff for this class. A readjustment of the Arts and Chemistry timetables will come in force next session. A fuller course in Analytical Chemistry and some special lectures in Organic Chemistry for students in Pharmacy have been arranged under Dr. Hatcher.

The Department again had the advantage of a series of lectures from chemical experts on dyes, distillation of wood, pulp and paper, paints and varnishes, brewing and distillation, refining of sugar, etc. These lectures supplemented the course given by members of the staff.

Two special lectures in the Department were largely attended, one on "Colloids" by Prof. Jerome Alexander, and the other on "Pyrotechnics" by Dr. Henry T. Faber. Dr. Faber was technical director of pyrotechnics for the United States during the war.

Graduate School and Research

All available space for graduate students was occupied by the twenty-four who registered in Chemistry, the private laboratory in the Biological Building and the preparation rooms also being

used for research. The weekly colloquia, tutorials and the Chemical Society were regularly attended by the graduates and staff throughout the session. Twenty-six papers were read by the members of the Graduate School. As will be seen by the report of the Faculty of Graduate Studies and Research, four graduate students obtained the degree of Ph.D. in Chemistry at the June Convocation and seven the degree of Master of Science.

The following awards have been made by the Honorary Advisory Council for Scientific and Industrial Research to members of the Graduate School in Chemistry for the session of 1925-26:—

Fellowship

Helen D. Chataway, Winnipeg. M.Sc., Manitoba.

Studentships

George W. Holden, Montreal. B.A., Bishop's; M.Sc.

I. Jocelyn Patton, Westmount. M.Sc.

Carol E. Robertson, Westmount. M.Sc.

Christian Sivertz, Victoria. B.Sc., U.B.C.; M.Sc.

Edgar W. R. Steacie, Westmount. M.Sc.

Frederick H. Yorston, Montreal. M.Sc.

Bursaries

G. Laurence Matheson, Ottawa. B.Sc.

Victorian Sivertz, Victoria. B.A., Wash.; M.Sc., W. Virginia.

Dr. D. M. Morrison was awarded the Ramsay Memorial Fellowship and has been accepted to work under Sir Ernest Rutherford at Cambridge.

Dr. R. S. Jane was awarded the British Empire Exhibition Fellowship and will carry on research in colloid chemistry under Dr. Hatschek of London. Both of these Fellowships were open to all graduates in Canada.

During the session of 1924-25 the Sterry Hunt Scholarship was held by Dr. D. M. Morrison, who delivered a short course on Chemical Bibliography.

All of those who obtained the Doctor's degree have taken university positions, Dr. H. R. Chipman at Dalhousie, Dr. Paul Larose at Laval, Quebec, and Dr. John H. Mennie as Associate Professor at the University of Western Ontario. Mr. L. A. Munro is Associate Professor of Chemistry in the Faculty of Agriculture at the University of Manitoba. The Governor General's Medal for the best scientific thesis in the Faculty of Graduate Studies and Research was awarded to Dr. John H. Mennie.

The Baillie Library was in constant use throughout the session, the daily average being about twenty-eight readers and six or seven books taken out. The library was used not only by members of the staff, graduate students and undergraduates, but also by chemists from the large industrial plants in the city and district. In the section devoted to periodicals we have been able to fill in the gaps in some of our sets and also have placed subscriptions for some not hitherto received. In regard to books, we have added to the library many recent works on chemical subjects and the latest editions of standard publications.

Messrs. Holden, Matheson, Sivertz and Steacie have received scholarships and will remain in the Graduate School, going forward to the degree of Ph.D. Mr. Stockwell has left to enter industrial chemistry.

For a list of the researches conducted in the Department during the session, see reports of the Librarian and of the Faculty of Graduate Studies and Research.

All of which is respectfully submitted.

R. F. RUTTAN,
Director of Chemistry.

MACDONALD PHYSICS BUILDING

On December 5th, 1924, a fire was discovered about 2 p.m., which had made considerable headway in the Optical Laboratory and attic above it. Staff and students took preliminary action and the prompt arrival of the fire brigade and their efficient work checked the fire. The loss to fabric and to furniture was not large, but unfortunately there was a heavy loss in the optical room, where the choice apparatus carefully selected by Prof. John Cox, about thirty years ago, was assembled and in adjustment.

This loss is covered by insurance and replacement is in rapid progress with the latest designs and exquisite workmanship of the well-known firm of Hilger, London. The cause of the fire remains obscure, but probably points to a short circuit in the resistance of a quartz mercury arc. This instrument had been running for about an hour only, whereas on previous occasions it had been run for many hours without trouble. There was no evidence of carelessness at the inquiry.

The American Physical Society was invited by the Principal to visit McGill for their quarterly meeting, in February, 1925, but acceptance was not possible owing to a previous engagement with the Optical Society of America. The visit is, however, to take place in February, 1926, and arrangements are in progress for the comfort and convenience of our visitors.

During the Session the Department of Physics has been fortunate in having lectures from several notable scientific men, namely, Dr. R. W. Wood, of the John Hopkins University, who lectured on "Invisible Light"; Dr. L. Silberstein, of the Eastman Kodak Co.; Rr. M. Siegbahn, of Upsala University; Dr. P. Debye, of the University of Zurich; Dr. B. Ross, of the State of New York Observatory at Albany. The visits of these men, their lectures, and their conferences have been alike stimulating and beneficial.

The semi-popular extension lectures on "Modern Physics" were well attended and of good quality. Ten lectures for schoolmasters were also given to a small group. The Christmas lectures to Juveniles consisted of four excellent lectures to an enthusiastic audience of young people.

Dr. H. T. Barnes has conducted some striking experiments for the Hydro-electric Power Commission of Ontario on a special heat treatment for the demolition of ice with an unexpected disruptive violence which promises control of ice-jams. Further evidence will be forthcoming and reported in due course. He is planning to apply the same treatment to icebergs off Newfoundland.

Dr. L. V. King has been doing some research work with the rontgen ray apparatus of the type made by the General Electric Company and donated by the generosity of Mr. Walter Stewart.

Dr. A. N. Shaw has continued work on the problem of tide prediction in estuaries, on the Kata thermometer, and on the thermal currents in uniform conductors with an asymmetric temperature gradient.

Dr. D. A. Keys has investigated the spectroscopic character of the negative glow, Faraday dark space and striae of various gases.

Dr. J. S. Foster is continuing his theoretical and experimental investigation on the Stark effect, and the pioneer work which he did at Yale University, under the auspices of the Research Council of the United States, has received considerable attention and commendation.

Other researches which were reported last year are making progress.

A gift of a super-heterodyne set has been presented to the Laboratory by the Northern Electric Company.

Mr. W. C. Quayle, after a year at the Cavendish Laboratory, has accepted the position of Assistant Professor at Macdonald College, succeeding Dr. J. A. Lynde, who is now at the Teachers College in New York.

Mr. A. L. Patterson was elected to the Morse Travelling Fellowship and is working under Sir William Bragg at the Davy Faraday Institution in London.

There has been satisfactory progress in the Library, Journal Club, Colloquim, and Physical Society, and the number of students in the Graduate and Undergraduate Schools is increasing. The number of students entering the course in Engineering Physics is increasing also, and their quality is good.

The general discipline and industry of the students in Physics has continued praiseworthy. It is clear that a further increase in the number of students is not feasible with the lecture room and laboratory accommodation for first and second year students.

A. S. EVE.

Director of the Department of Physics.

Macdonald Physics Building,
McGill University,
Montreal.

DEPARTMENT OF PHYSICAL EDUCATION

The Standing Committee on Physical Education is pleased to be able to report further progress in the various phases of activity under its supervision. In spite of the handicap under which the activities of the Department are conducted a very full programme of activity has been carried on for all men and women undergraduates in the University.

The customary medical examination of all students of the first and second years, and all students taking part in competitive athletics were conducted during the month of October, and many cases were found in which it was necessary to limit the type of competition in which the student should take part. In many cases incipient diseases were detected and students received medical advice, which undoubtedly proved of great value. 1,645 medical examinations were conducted, 83% of the men examined were in category A.

Health Service

Continued use of the Health Service, supervised by Dr. F. W. Harvey, the University Health Officer, has been made by the undergraduates, there being 2,465 medical consultations and 255 visits to the tomes or boarding houses of the students. 1,090 different individuals were excused on medical grounds for 3,232 days absence, or approximately 3.3 days per student. By far the largest percentage of excuses was noted during the month of February. The Department co-operated with the Student Christian Association in the examination of boarding houses, and printed announcements were distributed to all students at the time of registration, announcing details in connection with the Health Service and other matters.

Required Work for Undergraduates

It is very gratifying indeed to note that greater interest is being taken by the students in the physical programme which has been organized by the Department for their benefit. There have been students in attendance at the interclass and interfaculty contests, and also more students actively taking part in the indoor activities conducted in the gymnasium than in past years, and the totally inadequate accommodation is taxed to overflowing.

Of the 28 students reported for the supplemental course for non-compliance with the attendance regulations, only 5 had a clear academic record. And of the 27 students reported during the previous year, only 1 had a clear academic standing in his Faculty.

The Gymnastic competition for the Strathcona prizes was conducted for the women undergraduates, with the following results:

Year IV.—M. MacLaren, M. Sangster.
Year III.—I. Allen.
Year II.—G. Cameron, J. Fairbairn.
Year I.—M. McMartin, B. Carter.

The results of the Wicksteed Gymnastic Competition were as follows:—

Silver Medal won by J. R. Delahay, Med. '25.
Bronze Medal won by D. O. Bremner, Sci. '26.
Dr. Harvey Cup won by W. Consiglio, Sci. '28.

Intercollegiate and Intramural Athletics

The newly-created Athletic Board, under the direction of Major D. S. Forbes, Athletic Manager, has supervised a year of marked activity in the various forms of athletic competition, and the wisdom of the reorganization effected two years ago is now well established. A number of important agreements tending toward more harmonious relationships and the better conduct of competitive athletics were agreed upon by the Canadian Intercollegiate Athletic Union, and the Athletic Managers of the respective Universities. The most important of these regulations are: the one year residence rule, training table and travelling expense regulations, entertainment of visiting teams, a more systematic form of schedules, a better system of keeping accurate records, and the apportioning of the expense of conducting Intercollegiate competition.

Season Universal Tickets.

The season ticket system has proved to be a success, double the number of tickets being sold during the past season, and new subscriptions have already been made for the coming season. Additional bleacher accommodation of 1,200 seats will be supplied for the fall. The universal ticket met with general approval and this meant a greatly increased attendance at the various athletic activities. This was especially the case in connection with the minor sports.

Awards.

A new system of awards has been introduced, which appears to be a more satisfactory arrangement than the one existing before. The following awards were granted during the year:

Full Color	44
Half Color	76
Quarter Color	53
Numerals	107
Shields	54

Stadium.

Six of the City Soccer Clubs have been granted the use of the Stadium for the current season, and for the Dominion Interscholastic Championships, which are being conducted by the University, 12 schools are using the field for 10 athletic meets. Approximately 300 boys and girls per week are using the accommodation provided by the University for track and field purposes.

Athletic Activities—Women Undergraduates.

Interclass and individual tournaments were conducted in tennis and athletic sports, and inter-year and intercollegiate competitions were conducted in hockey and basketball.

School of Physical Education

It was found necessary to limit the registration in the School of Physical Education to 50 students, owing to the fact that it was quite impossible to accommodate a greater number. Almost all the Provinces of the Dominion are represented, there being a record number from the Province of Ontario of 10 students in the first year. The School Hostel, located at 724 University St., continues to fill a great need in providing living accommodation for out of town students, the residence being fully occupied by 20 undergraduates. It was necessary for several students to find accommodation elsewhere.

It is very gratifying indeed to note the increasing importance that is being attached to proper supervision of physical activities for boys and girls, many requests being received from all parts of the country for properly trained teachers to carry on this work.

The prize winners for the year were:

School Gold Medal .....Beryl Field
Cup for Practical Work ....Joyce Plumptre
Ist Year Prize .....Estelle Amarson

Academic Standing of Athletes

There has been a good deal of discussion at various times concerning the academic standing of those students who are devoting a good share of their time to athletic activities. In some Faculties there have been certain students who were outstanding athletes and who unfortunately did not secure a very creditable ranking in their undergraduate work. Much importance was attached to these cases and some opinions were based upo nthe effect of participation in athletics, the conclusion being that athletes generally speaking were not good students. An investigation took place during the past session, and a

comparison was made between those students who had sufficient athletic ability to secure athletic insignia, with the general standing of the undergraduates in the various Faculties. A consideration of the figures has conclusively shown that as far as this University is concerned the athletes have on the average a better academic ranking than those who do not take part in athletic activities.

The results of this investigation are borne out by a study made in the United States recently and published in "The Scholastic," May 15th, 1924, in which the investigation covered 47 of the leading colleges and universities of the United States. The erroneous conclusion which many people have made is apparently based upo nthe consideration of a very limited number of cases to which much importance has been attached, owing to their outstanding ability as athletes.

The Committee desires to express its appreciation of the very valuable service rendered by the staff of the School, especially Miss E. M. Cartwright, Miss Ethel Wain, and Miss Ruth Harvey, by whom the burden of the practical work was so ably carried.

The Committee wishes to record its appreciation of the efforts of the entire Staff in carrying on so efficiently under many difficulties. The work of the Department of Physical Education is considerably handicapped by inadequate accommodation, the activities as present being conducted in thirteen different buildings. The Committee realizes that the Department is not doing all that is desirable for the welfare of the students, and it is hoped that when the new building is erected more efficient work will be conducted. The Department, through its Staff, has been able to assist many organizations in the city with the problem of organizing and supervising programmes in physical education.

The Committee wishes to record its appreciation of the co-operation of other Departments and Faculties and the sympathetic help of many individuals, which has made possible the growth and development of the Department and its School. It desires to express its gratitude and the hope of continued help in the many problems that are yet to be overcome.

Respectfully submitted,

A. S. LAMB,

Director.

ZOOLOGY

Classes were held in the following subjects:—

Zoology 1M. Premedical Zoology.
" 1. Elementary "
" 2. Invertebrata.
" 4. Vertebrata.
" 5. Comparative Embryology.
" 7. Ethnology.

The course in Zoology 2 was interrupted by the death of Dr. Joseph Stafford, which took place on March 24th, 1925. Although in ill-health, he had continued to conduct his classes up to the end of the first term of the session. Obituary notices appeared in the Montreal Star on March 25th, and in the McGill Daily on March 27th. Dr. Stafford's earlier publications dealt with the subject of animal parasites, later he was concerned with problems of oyster culture. His principal papers are the following:—

1. 1896. Anatomical structure of Aspidogaster conchicola. Zool. Jahrb. Bd. 9, Abth. f. Morphol. pp. 477-542, Taf. 36-39. Leipzig.
2. 1904. Trematodes from Canadian Fishes. Zool. Anz. Bd. 27, pp. 481-495.
3. 1905. Trematodes from Canadian Vertebrates. Ibid. Bd. 28, pp. 681-694.
4. 1907. On the Fauna of the Atlantic Coast of Canada, an introductory report by Dr. Joseph Stafford, Lecturer in Zoology, McGill University; Curator of the Marine Biological Station of Canada. Contrib. Canad. Biol. 1902-1905, pp. 31-36. Ottawa, 1907.
5. 1907. Preliminary Report on the Trematodes of Canadian Marine Fishes. Ibid. pp. 91-94.
6. 1907. The Larva of the Canadian Oyster. American Naturalist, vol. 43, pp. 31-47.
7. 1910. The Spat of the Canadian Oyster. Ibid. vol. 44, pp. 343-366.
8. 1912. Supplementary Observations on the Development of the Canadian Oyster. Ibid. vol. 46, pp. 29-40.
9. 1913. The Canadian Oyster, its Development, Environment and Culture. Commission of Conservation, Canada. 159 pages, 7 plates and map. Ottawa, 1913.

In a prefatory note in the Contributions to Canadian Biology, 1902-1905, Professor E. E. Prince, L.L.D., Dominion Commissioner of Fisheries, wrote:—"Dr. Joseph Stafford for some years has devotedly performed the duties of curator at the station, and year after year, has

spent the whole season from the opening to the close, in faunistic, fishery and other studies, especially the study of fish-parasites."

The McGill Biological Society was started this year. Six addresses have been given by Professors A. Willey, F. E. Lloyd, A. B. Macallum, Sir Andrew Macphail, John Tait and Dr. A. G. Huntsman. Sir Andrew Macphail's lecture has been printed in pamphlet form entitled "The Idea of Evolution, an address to the Biological Society, McGill University, January 23rd, 1925." Dr. Huntsman's lecture on the Ocean around Newfoundland was given at a joint meeting of the Biological and Physical societies.

Miss Jean Henderson has demonstrated in Zoology 1M, 1, 4, and 5. In the time remaining she has been making a careful study of a species of crustacean which lives upon the gills of pike-perches in Lakes St. John and Chibogamo, where it was collected by me, from the free-swimming to the attached stage.

Mrs. Kathleen Pinhey, holding the Philip Carpenter Fellowship, has completed a valuable report on the Entomostracan Plankton of the Belle Isle Strait Expedition (1923) which has won high encomiums from Dr. A. G. Huntsman of Toronto, the leader of the expedition.

In the summer of 1924 I undertook the hazard of a journey to Lake Mistassini in pursuance of a research begun privately in Lake St. John in 1922. The cost of the trip was $1,150.00 of which sum $500.00 was granted to me by the Finance Committee as a special appropriation for travelling. The material secured is easily worth $1,500.00. I have just sent in the first paper dealing with the results for the May meeting of the Royal Society of Canada, illustrated with thirty-one text-figures. A brief general narrative was published by request of the Editor of The McGill News for March 1925, with two half-tone illustrations. I brought away all the material collected in my own load. The results in their way throw a new light on the conditions and distribution of aquatic life in the north country in comparison with the United States and the Continent of Europe.

The journey was of the nature of a field experiment which has yielded positive results. A great deal of work has been done during the past twenty-five years on the inheritance of unit characters under wild conditions, the forms under observation being particularly favourable for this purpose.

Respectfully submitted,

ARTHUR WILLEY.

May 25th, 1925.

McGILL CONTINGENT

CANADIAN OFFICERS' TRAINING CORPS

From

The Officer Commanding,
McGill Ct. C.O.T.C.

To

The Military Committee,
McGill University.

Gentlemen,—Before I lay before you my report on this Unit for the season ended 31st March, 1925, may I express my deepest regret at the death of Major H. Pavey, C.A.M.C., who has always done his utmost for this corps, and to do so has made considerable sacrifices of time. I wrote a letter of sympathy to Mrs. Pavey on behalf of this Committee and on behalf of the Unit, and also sent a wreath.

I now proceed with my report.

Strength.—The strength of the Unit is now as follows:—

Officers (including 1 attached)		16
Other ranks:		
Total enlistment for the session.....	118	
	35	83
		99

Parades.—The following parades have been held:—

Parades	No. of Parades	Average attendance Officers	Other Ranks	Total
Evening (2 hours)	20	9	49	58
Evening (Recruit 1 hour).	11	1	12	13
Afternoon—				
Infantry scheme	1	4	19	23
Calvary Rides	18	1	9	10
Week-end excursions:				
Infantry	3	6	38	44

The two-hour evening parades were held in the Craig Street Armoury, the use of which has been of great benefit to the Corps, despite the distance which men have to travel in order to get there. We had the use of the Armoury on every Thursday night, but unfortunately this has proved a very awkward night for a large number of the men. If we could have the use of an Armoury on Mondays or Wednesdays, it would be of great advantage to the Corps, helping up the attend-

ance at parades, and reducing the number of discharges through men falling off in attendance.

A section of men have been parading with the 2nd Brigade C.F.A. for drill as gunners.

The recruit-drills were held in and about the Old Law Building and in the Montreal High School.

The cavalry rides were held about Mount Royal and Westmount on Saturday afternoons.

The week-end excursions for Infantry training were held at Macdonald College, Ste. Anne de Bellevue, and the Boys' Farm, Shawbridge.

Musketry.—The following have classified:—

	All Ranks
1st Class	28
2nd Class	39
3rd Class	5
	72

Shooting has been carried on in the following ranges:—Craig Street Armoury, service rifle; Royal Highlanders' Armoury, service rifle; Grenadier Guards Armoury, service rifle; High School, peep-sight for Lewis Gun training.

The musketry could be improved considerably if we had the permanent use of a range in the immediate neighbourhood of the University.

The highest scores in the final shoot for the Reserve Officers Cup, awarded to the efficient soldier who is the best shot with the Service Rifle, were as follows:—

Lieut. D. MacRae—40 (highest possible).

B.S.M. K. Reid—40 (highest possible).

Challenge Cups.—The two challenge cups for the best company and best platoon have not yet been awarded for the Session 1924-25. They are to be awarded on a system of marking for general efficiency, musketry, smartness in dress, and success at C.O.T.C. examinations. We are awaiting the results of the written examinations.

Lectures.—A course of 32 lectures was given for the benefit of "A" and "B" infantry candidates. Many of these applied to men receiving cavalry training, and they were supplemented by additional lectures especially in cavalry work.

These lectures have been given by Permanent Force Officers from District Headquarters, and from the Royal School of Cavalry and Royal Canadian Regiment at St. Johns; by ex-officers on the University staff, and by officers of this Unit.

Medical Corps.—Sufficient men did not come forward to warrant our continuing during this session with our scheme of training.

C.O.T.C. Examinations.—In my last report to you dated 24th April, 1924, I could only give figures for those who had passed the practical portions of their examinations. The final results have been published, and are as follows:—

Captain (B., C.O.T.C.) Infantry.....	3
Lieutenant (A., C.O.T.C.) Infantry....	14
	17

The following certificates were also obtained by members of this unit:—

	Pass
Canadian Small Arms Course	1
Course for Cavalry Captains at the Royal Canadian School of Cavalry..	1

This session I have emphasized my previous policy of stopping cadets from studying for the military certificates, if I thought that their military studies would interfere with their regular studies for their university degrees. I believe that we will get the benefit of this during succeeding sessions.

The following are the results of the practical examinations held last February:—

	Entered	Failed	Passed
Cavalry (A., Lieutenant).....	7	..	7
Artillery (A., Lieutenant).....	1	..	1
Infantry (B., Captain)	8	2	6
Infantry (A., Lieutenant)	9	4	5
	25	6	19

Of the above, 2 candidates, one B. Infantry and one A. Cavalry, did not sit for their written examinations through sickness.

Academic Credit.—The Faculty of Applied Science passed the following resolutions on 13th October, 1924:—

1. The Faculty of Applied Science hereby expresses its general approval of the proposal that academic credit be given for the subject of Military Science as taught by the C.O.T.C.

2. The Faculty accepts the certificates "A" and "B" or either of them as entitling a student holding them to additional credits in his first, second or third year, and either additional credit or acceptance as an alternative course in the fourth year, provided that all students pro-

posing to apply for such credits in any session, shall register for them not later than November 1st, and shall have their courses approved by the Dean and by the O.C., C.O.T.C.

3. That the amount of credit to which the holder of either of these certificates is entitled is to be determined by the percentage marks assigned him by the War Office Examiners, based upon the full mark value of the subject of 75 in the first, second and third years, and 100 in the fourth year.

An application to the Faculty of Arts for academic recognition of Military Science was turned down after discussion at three successive meetings of the Faculty.

A similar application to the Faculty of Medicine has not been dealt with as yet by that Faculty.

Flying.—Sergt. T. W. Kerr has successfully completed the first term of his course as a provisional pilot officer with the Royal Canadian Air Force at Camp Borden.

Cadet W. O. Stevens has had to withdraw from this course owing to ill-health.

Headquarters Staff.—Major J. W. Jeakins, M.M., has taken up his duties as adjutant, and this is helping considerably in the running of the unit.

The Orderly Room is in the Old Law Building, which is proving of great utility to the Unit.

Q. M. Department.—The Stores are in the Old Law Building. Rifles for shooting, and for Recruit drills are kept there during the training season.

The bulk of the Rifles, etc., are kept in Craig Street Armoury during the training season. During the summer, the whole are kept in this Armoury. This unit is much indebted to the Officer in Charge of Craig Street Armoury for the use of our store-room there.

R. R. THOMPSON,
Lieut.-Colonel,
O.C., McGill Ct. C.O.T.C.

Orderly Room, McGill University.
April 3rd, 1925.

FINANCIAL STATEMENTS
1924-1925

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ROYAL INSTITUTION FOR

COMPARATIVE BALANCE

ASSETS

	May 31st. 1924	May 31st. 1925
CURRENT ASSETS:		
Cash in Bank	$,174,331.90	$ 9,812.87
Accounts Receivable	87,298.94	93,210.09
Merchandise and Supplies	95,569.19	100,793.24
Interest Due	42,989.43	37,408.89
	$ 400,189.46	$ 241,225.09
INVESTMENTS (Schedule A):		
General	$15,084,358.58	$14,157,650.18
Macdonald College	2,593,384.97	2,567,277.46
	$17,677,743.55	$16,724,927.64
GROUNDS, BUILDINGS AND EQUIPMENT (Schedule B)	$10,432,515.77	$ 9,884,768.14
Construction in Progress (Schedule C)	178,338.94	565,851.05
	$10,610,854.71	$10,450,619.19
DEFERRED CHARGES	16,268.72	10,708.91
LOSS AND GAIN		
McGill University	125,389.34	28,153.81
Macdonald College	32,604.18	77,955.36
	$ 157,993.52	$ 106,109.17
ADVANCES TO ENDOWED DEPARTMENTS	56,763.29	26,994.85
	$28,919,813.25	$27,560,584.85

MONTREAL, 24th July, 1925.

Audited and verified subject to our Report of this date.

MACINTOSH, COLE & ROBERTSON,
Chartered Accountants.

THE ADVANCEMENT OF LEARNING

SHEET, MAY 31st, 1925

LIABILITIES

	May 31st, 1925	May 31st, 1924
CURRENT LIABILITIES:		
Caution Money and Other Deposits	$ 7,861.58	$ 7,667.74
Students Council, Societies and Others	17,723.99	21,744.82
Accounts Payable	82,793.87	39,241.06
	$ 108,379.44	$ 68,653.62
ENDOWMENTS AND DONATIONS (Schedule D)	28,470,059.93	$27,206,814.43
FUNDED REVENUE (Schedule E)	115,654.61	98,999.38
RESERVES:		
General Depreciation Reserve—Power House	91,775.14	83,817.45
Investment Depreciation Reserve	60,248.49	56,897.24
Macdonald College Material Stock Reserve	21,237.33	.....
	$ 173,260.96	$ 140,714.69
LIABILITY INSURANCE FUND	9,468.98	7,993.84
DEFERRED CREDITS:		
Interest Unallocated	42,989.43	37,408.89
	$28,919,813.25	$27,560,584.85

CERTIFIED CORRECT:
A. P. S. GLASSCO,
Bursar.
S. R. BURRELL,
Asst. Bursar.

July 15th, 1925.

SCHEDULE A

INVESTMENTS, MAY 31, 1925

	Revenue	Capital
MORTGAGES:		
Yielding 4.50%	$ 572.62	12,724.99
" 5.00%	76.25	1,525.00
" 6.00%	33,072.26	551,204.34
" 6.50%	58,818.50	904,900.00
" 7.00%	63,597.46	908,535.10
" 7.50%	2,925.00	39,000.00
	$ 159,062.09	$ 2,417,889.43
Average Rate—6.58%		
BONDS:		
Average Rate—5.70%	780,671.80	13,693,427.97
STOCKS:		
Average Rate—6.70%	99,061.95	1,478,711.84
PROPERTIES 3.64%	3,191.82	87,714.31
Total Average Rate—5.89%	$ 1,041,987.66	$17,677,743.55

SCHEDULE B

GROUNDS, BUILDINGS AND EQUIPMENT:

Macdonald Engineering Building	$ 468,473.13
Macdonald Engineering Equipment	242,245.66
Thos. Workman Mechanical Workshops	88,206.51
Thos. Workman Mechanical Workshops Fireproofing	67,034.14
Thos. Workman Mechanical Workshops Equipment	23,079.28
Macdonald Physics Building	146,551.97
Macdonald Physics Building Equipment	111,412.06
Macdonald Chemistry & Mining Building	185,410.44
Macdonald Chemistry and Mining Building Equipment	116,352.18
Main Building	99,722.03
Arts Fixtures and Furniture	10,362.54
Natural Science Apparatus	10,657.05
Philosophical Apparatus	1,568.58
Law Fixtures and Furniture	816.48
Medical Building	785,040.58
Biological Building	577,989.61
Biological Building Equipment	139,509.32
Botanical Greenhouses	33,410.03
Botanical Greenhouses Equipment	181.16
Pathological Building	440,503.04
Pathological Building Equipment	53,749.67
Faculty of Music Building and Site	195,000.00
Macdonald College Buildings, Equipment and Grounds	3,353,692.02
Peter Redpath Museum Building	100,000.00
Museum Collections	58,347.98
University Library Building	320,739.50
University Library Building Equipment	3,708.37
Observatory Building	4,228.39
Macdonald Observatory Property	70,405.12
Transit Houses	465.50
Faculty Club Property	49,250.00
Faculty Club Equipment	5,750.00
McGill Union Building and Site	234,454.93
Light, Heat and Power Station	215,223.90
University Street Property No. 746	18,948.65
Porters Lodge	2,125.00
Library Books Account—General	405,146.18
Medical Library Books Account	56,177.65
College Grounds	1,602,453.61
Percival Molson Memorial Stadium	134,123.51
	$10,432,515.77

SCHEDULE C

CONSTRUCTION IN PROGRESS, Ledger Balances as at May 31st, 1925.

University Gymnasium Building	$ 39,769.72
Arts Building	964.51
Light, Heat and Power Building Extension	26,593.81
Engineering Building Extension	67,730.37
New Engineering Building	18,556.73
Dental Clinic Building and Equipment at Montreal General Hospital	23,382.98
Poultry Houses and Extension, Macdonald College	1,340.82
	$ 178,338.94

SCHEDULE D

ENDOWMENTS AND DONATIONS, ETC.

ORIGINAL ENDOWMENT AND BEQUEST IN LAND:		
Hon. James McGill		$ 427,178.04
DONATIONS OF LANDS, BUILDINGS, APPARATUS, ETC.:		
Macdonald Engineering Building and Equipment Donation	$ 460,396.89	
Thomas Workman Donation for Workshops and Equipment	57,137.31	
Macdonald Donation towards Erection of Workman Workshops	20,000.00	
Donations to Equipment of Workman Mechanical Workshops	13,150.04	
Engineering Building Donations for Annex	23,000.00	
Macdonald Physics Building and Equipment Donation	248,662.57	
Donations for Macdonald Physics Building Equipment	3,692.59	
Macdonald Donation of Chemistry and Mining Building and Equipment	279,321.84	
Donations for Equipment of Macdonald Chemistry and Mining Building	2,000.00	
William Molson Donation of Halls and Corridors	27,500.00	
Donations for Fixtures and Furniture	4,900.00	
Donations for Natural Science Apparatus	6,224.17	
Donations for Faculty of Law Equipment	305.98	
Lord Strathcona Donation of New Medical Building and Site	620,000.00	
J. H. R. Molson's Donation for Extension of Medical College Buildings	62,153.86	
Donations for Faculty of Medicine Equipment	6,214.28	
Lady Strathcona Donation to Medical Faculty	52,346.00	
Hon. Mrs. R. J. B. Howard's Donation to Medical Faculty	52,346.00	
Royal Victoria Hospital Donation towards Construction of Pathological Building	102,018.21	
Lady Strathcona Donation for Faculty of Music Property	195,000.00	
Macdonald Donation for Macdonald College	3,198,355.88	
Redpath Museum Building Donation	100,000.00	
Donations for Museum Collections	46,647.61	
Henry H. Lyman Entomological Bequest of Collection	5,000.00	
Peter Redpath Library Building Donation	187,002.24	
Macdonald Donation of Observatory Property	70,405.12	
Donations for Dormitories	5,920.00	
Dr. James Douglas Donation for Dormitories	200,000.00	
Faculty Club Donation	25,000.00	
Macdonald McGill Union Donation	219,119.00	
Andrew Carnegie Donation	100,000.00	
Donations for Lodge Building	1,950.00	
Macdonald Donation of Dawson University Street Lot	8,737.86	
Macdonald Donation of Lots above Medical College	7,375.33	
Macdonald Donation of Jesse Joseph Property	142,500.00	
Lord Strathcona Donation for Carlton Road Lots	5,250.00	
J. H. R. Molson Donation of McTavish Street Property for Library Site	42,500.00	
Macdonald Donation of Macdonald Park	1,117,639.50	
Percival Molson Bequest	75,000.00	
Donations for Percival Molson Memorial Stadium	59,123.51	
Lady Strathcona Donation of Lorne Crescent Property	50,700.00	
Donations for Library Books	116,745.17	
		$ 8,021,340.96
Forward		$ 8,448,519.00

SCHEDULE D—(Continued)

Forward		$ 8,448,519.00
CHAIR ENDOWMENTS:		
S. H. Ewing and Heirs Demonstratorship in Mechanical Engineering	10,000.00	
Macdonald Chair of Architecture	50,000.00	
Macdonald Chair of Electrical Engineering	60,000.00	
William Scott Chair of Civil Engineering	30,000.00	
Thos. Workman Chair of Mechanical Engineering and Maintenance of the Mechanical Workshops	59,862.69	
Macdonald Chairs of Physics	120,000.00	
Macdonald Chairs of Chemistry	110,000.00	
Henry Birks Chair of Metallurgy	75,000.00	
Macdonald Chair of Mining	60,000.00	
R. B. Angus Associate Chair of Economics and Political Science and Departmental Endowment	50,000.00	
Dawson Chair of Geology, founded by Sir W. C. Macdonald	50,000.00	
William Dow Chair for Political Economy	75,000.00	
John Frothingham Chair of Mental and Moral Philosophy	40,000.00	
David J. Greenshields Associate Chair of English Literature	40,000.00	
Dr. B. J. Harrington Lectureship in Minerology	6,550.00	
Dr. William Kingsford Chair of History, founded by Sir W. C. Macdonald	50,000.00	
Logan Chair of Geology	20,000.00	
Macdonald Chair of Botany	50,000.00	
Macdonald Chair of Education	60,000.00	
Macdonald Chair of Moral Philosophy	50,000.00	
Hiram Mills Chair of Classics	43,070.32	
Molson Chair of English Language and Literature	40,000.00	
Peter Redpath Chair of Pure Mathematics	20,000.00	
Philip S. Ross Demonstratorship	22,500.00	
Strathcona Chair of Zoology	120,000.00	
Sun Life Assurance Co. Junior Lectureship in Mathematics	25,000.00	
Gale Chair in Law	25,000.00	
Dr. Jos. M. Drake Chair of Physiology	25,000.00	
Dr. James Douglas Lectureship in Pathology	25,000.00	
Robert Reford Chair of Anatomy and Departmental Endowment	100,000.00	
John Frothingham Principal Fund	40,000.00	
		1,551,983.01
MISCELLANEOUS ENDOWMENTS:		
General Endowments, 1856 and 1871	$ 55,770.00	
General Endowment Fund, 1881	32,700.00	
General University Fund	47,757.05	
General Campaign Endowment Fund, 1911	1,116,501.18	
Centennial Endowment Fund, 1920	4,841,012.63	
Carnegie Corporation Endowment	1,000,000.00	
G. B. Cramp Bequest	51,780.00	
Miss Mary A. Cramp Bequest	25,000.00	
Samuel Greenshields Bequest	5,000.00	
Edwin H. King Endowment	50,000.00	
McGill University College of British Columbia Fund	2,000.00	
J. H. R. Molson Fund	100,000.00	
Mrs. J. H. R. Molson Fund	103,250.00	
Heirs John Thomas Molson Endowment	50,000.00	
Robert Reford Endowment for Salaries	50,000.00	
James Ross Bequest	162,148.56	
Aldana R. Spencer Legacy	3,000.00	
Lord Strathcona Endowment for Salaries	50,000.00	
Anne W. Tedford Bequest	4,500.00	
Hon. F. W. Torrance Bequest	41,290.00	
W. Vaughan Endowment	33,000.00	
Faculty of Applied Science Fund	6,100.00	
Macdonald Endowment for Maintenance of Architectural Department	10,000.00	
Graduates Endowment Fund—Faculty of Applied Science	105.00	
Macdonald Chemical Department Endowment	135,000.00	
Macdonald Mining and Metallurgical Department Fund	55,000.00	
Faculty of Arts Fund	4,300.00	
Andrew F. Gault Endowment	9,000.00	
Chas. Gibb Botanical Fund	30,800.00	
Mary Teskey Legacy	13,193.45	
Forward	$ 8,088,207.87	$10,000,502.01

SCHEDULE D—(Continued)

Forward	$ 8,088,207.87	$10,000,502.01
MISCELLANEOUS ENDOWMENTS—(Continued):		
Faculty of Law Fund	$ 122,209.00	
Macdonald Law Faculty Fund	232,500.00	
Campbell Memorial Fund	48,906.04	
Dr. R. Craik Fund	4,000.00	
Mrs. Mary Dow Bequest to Medical Faculty	9,000.00	
Leanchoil Fund	50,000.00	
A. E. Holden Legacy for the Department of Pharmacy	500.00	
The Eddie Morrice Laboratory of Pharmacology Endowment	14,000.00	
Macdonald Endowment for Medicine	500,000.00	
Rochefeller Foundation Endowment for Medicine	1,027,500.00	
Dr. George Ross Endowment	10,000.00	
Lord Strathcona Endowment of Department of Pathology and Hygiene	100,000.00	
Dr. R. Palmer Howard Memorial Fund for Music	5,000.00	
Macdonald Endowment for Faculty of Music	300,000.00	
Faculty of Music Fund	1,500.00	
R. J. Wicksteed Bequest	70,000.00	
Macdonald Endowment for Macdonald College	4,023,896.70	
Redpath Museum Fund	30,000.00	
Redpath Library Fund	120,000.00	
British Association Apparatus Fund	1,500.00	
Macdonald Endowment for Maintenance of Chemistry and Mining Building	225,000.00	
William Molson Museum Fund	2,000.00	
Macdonald Endowment for Maintenance of Engineering Building	85,000.00	
Macdonald Endowment for Maintenance of Physics Building	150,000.00	
McGill Union Graduates Endowment	16,432.56	
Buildings and Equipment Account—Faculty of Medicine	228,196.42	
Rockefeller Foundation Endowment for Medical Clinic	503,382.10	
		15,968,730.69
CAPITALIZED REVENUE:		
Engineering Building	$ 240,926.39	
Engineering Building Equipment	9,185.34	
Physics Building Equipment	3,168.93	
Chemistry and Mining Building Equipment	18,313.73	
Natural Science Apparatus	1,881.33	
Faculty of Law Equipment	510.50	
Faculty of Medicine Buildings	60,649.87	
Biological Building	12,265.14	
Macdonald College Buildings	155,336.14	
Museum Collections	317.79	
Library Books	266,476.54	
Medical Library Books	56,177.65	
Construction of Dormitories	138,102.29	
McGill Union Building and Equipment	15,335.93	
		978,647.57
FUNDS HELD FOR SPECIAL PURPOSES (Funded Revenue Ledger):		
See Schedule "E"		1,522,179.56
		$28,470,059.83

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

FUNDED REVENUE ACCOUNTS
MAY 31st, 1925

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st, 1924	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1925
PRIZES								
Anglin-Norcross Prizes	1912			$ 50.00	$ 50.00	$ 100.00		Dr. $ 50.00
Arts Undergraduate Society Prize	1925			50.00	50.00	50.00		
Building Construction, Prize for	1923		25.00		25.00	25.00		
Chapman, Henry, Prize	1919	499.00	1.48	27.68	29.16		29.00	.16
Coster Memorial Prize	1901			25.00	25.00	25.00		
Crosby Steam Gauge and Valve Co's Prize	1900		1.50	25.00	26.50	50.00		Dr. 23.50
Dawson, Sir William, Bursary	1901		310.71	60.00	370.71	60.00		310.71
Drake, Dr. J. M., Prize	1902	1,080.00	74.20	63.61	137.81			137.81
Hils, Dr. Joseph, Prize	1907	789.00	.22	46.12	46.34	40.00	6.00	.34
Junior Bar Association Prize	1911			15.00	15.00	30.00		Dr. 15.00
Macnaughton, Chester, Prize for Reading	1913	955.00	.80	54.14	54.94		55.00	Dr. .06
McCall, J. T., Prize	1920			25.00	25.00	50.00		Dr. 25.00
McCarthy, J. M., Prizes	1897		16.00	20.00	36.00	40.00		Dr. 4.00
McIntosh, Annie, Prize	1900	1,145.00	66.76	67.44	134.20	70.00		64.20
Martin, Dr. Charles F., Lawn Tennis Prize Fund	1923	755.00	8.32	44.47	52.79	42.00		10.79
Montreal Bar Prize	1918		50.00	50.00	100.00	100.00		
Montreal City and District Bank Prize	1925			10.00	10.00			10.00
Montreal Light, Heat and Power Consolidated Prize in Electrical Engineering	1924		200.00		200.00	400.00		Dr. 200.00
Penhallow Prize in Botany	1910	1,233.00	78.66	72.62	151.28	75.00		76.28
Physical Education Prize	1923		5.00		5.00			5.00
Reford, Mrs. R. Wilson, Fund for Departments of English and Philosophy	1920	5,000.00	308.00	294.50	602.50	300.00		302.50

Reid, Miss Helen R. Y., Prizes	1920			20.00	30.00	50.00	20.00			30.00
Robertson, Louis, Prize	1916	200.00		23.55	11.78	35.33	28.00			7.33
Social Workers, School of, Prize Fund	1923			45.00	10.00	55.00				55.00
St. James Literary Soc. Prize Fund	1923				50.00	50.00	50.00			
Stewart, Neil, Prize	1878	605.00		.66	34.46	35.12	15.00	20.00		.12
Tighe, James, Prize	1900			50.00		50.00				50.00
Traquair, Prof. R., Prize Fund	1925				25.00	25.00	25.00			
Turner, Philip J., Prize Fund in Building Construction	1923				50.00	50.00	50.00			
Wilson, J. C., Prize	1900	1,320.00		74.99	77.75	152.74	75.00			77.74
MEDALS										
British Association Exhibition and Gold Medal	1884	2,605.00			153.43	153.43	200.00		Dr.	46.57
Chapman, Henry, Gold Medal	1856	700.00		.30	41.23	41.53	.21			41.32
Logan Gold Medal	1864	2,925.00		.22	162.86	163.08		160.00		3.08
Molson, Anne Gold Medal	1864	3,645.00		2.35	202.62	204.97		205.00	Dr.	.03
Oliver, Allan Gold Medal	1918	1,688.64	Dr.	7.06	99.46	92.40	.21			92.19
Prince of Wales Gold Medal	1860	2,865.00		4.04	161.39	165.43	40.42	125.00		.01
Shakespeare Gold Medal	1864	2,660.00		1.60	150.78	152.38	.21	100.00		52.17
Sutherland Gold Medal	1879	1,550.00		.22	89.53	89.75	58.80	30.00		.95
Torrance, Elizabeth Gold Medal	1867	1,275.00		2.20	73.62	75.82	.21	25.00		50.61
Wicksteed, R. J., Medals	1913	200.00	Dr.	7.44	26.08	18.64	18.64			
Wood, Dr. Casey A., Medal	1905	1,000.00		109.66	50.00	159.66	55.00			104.66
SCHOLARSHIPS										
Alexander, Charles, Scholarship Fund	1870	2,000.00		523.60	117.80	641.40				641.40
Atnolstan, Lord, Scholarship Fund	1924				250.00	250.00	250.00			
Babcock & Wilcox Exhibition	1912						200.00		Dr.	200.00
Barclay, Dr. James, Scholarship Fund	1915	1,000.00		137.50	50.00	187.50	50.00			137.50
Baylis Scholarship Fund	1911	2,000.00		10.00	117.80	127.80	100.00			27.80
Bedford, District of, McGill Graduates' Society Scholarship Fund	1911	3,025.00		3 62	168.45	172.07		165.00		7.07
Berliner, Edgar M., Bursary	1919			124.00	136.00	260.00				260.00
Bruce, Robert, Bursaries	1923			36.77	508.93	545.70	200.00			345.70
Cooper, James, Scholarship Fund	1921			1,000.00		1,000.00				1,000.00
Delta Upsilon Memorial Scholarship Fund	1919	15,099.72		1,451.39	840.63	2,292.02	935.00			1,357.02
Dental Scholarship Fund	1922	240.41			13.37	13.37		13.37		
Drummond, Guy M., Scholarship	1915	31,990.00		.91	1,779.37	1,780.28		1,780.00		.28
Forward		90,049.77		4,754.73	6,482.92	11,237.65	3,828.70	2,713.37		4,695.58

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

FUNDED REVENUE ACCOUNTS
MAY 31st, 1925

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st, 1924	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1925
Forward		90,049.77	4,754.73	6,482.92	11,237.65	3,828.70	2,713.37	4,695.58
SCHOLARSHIPS—(Cont'd)								
Farrand, Narcissa, Scholarship Fund	1914	9,220.00	15.33	530.10	545.43	323.36	220.00	2.07
Fitch Scholarship Fund	1924			100.00	100.00			100.00
Hoare, Walter, Memorial Scholarship in Medicine	1920	7,439.00	.33	413.77	414.10		414.00	.10
Hodgson, Sidney J., Memorial Exhibition Fund	1919	8,360.00	1.83	459.14	460.97	425.00	35.00	.97
Hooper, Angus W., Scholarship	1922			100.00	100.00	100.00		
Houston Scholarship	1915	1,000.00	198.71	58.90	257.61			257.61
Hunt, Dr. T. Sterry, Scholarship Fund	1894	15,081.29	122.26	977.15	1,099.41	1,000.00		99.41
Jenkins Scholarship in Engineering	1925			200.00	200.00			200.00
Jones, Hon. Robert Scholarship Fund	1910	6,000.00	869.17	353.40	1,222.57	625.00		597.57
Khaki University and Y.M.C.A. Memorial Scholarship Fund	1921		Dr 21,046.12	6,828.52	Dr. 14,217.60	2,697.57		Dr. 16,915.17
Lindsay, C. W., Scholarship	1909			175.00	175.00	175.00		
Lyman, Hannah W., Memorial Fund	1872	1,648.00	2.18	96.01	98.19	80.00	18.00	.19
Massey, Rev. Samuel, Exhibition	1909		250.00		250.00			250.00
Mills, Hiram, Gold Medal Scholarship	1882	2,100.00	14.06	53.01	67.07	.21		66.86
Montreal Women's Club Scholarship	1924			150.00	150.00	150.00		
Morris, Alexander, Exhibition Fund	1907	1,000.00	208.89	58.90	267.79	50.00		217.79

Moyse, Dr. Chas. E., Travelling Scholarship	1920	40,000.00	4,254.36	2,356.00	6,610.36	3,000.00		3,610.36
Music, Faculty of, Scholarships and Exhibitions	1904		346.86		346.86	43.20		303.66
McCall, James Darling Scholarship	1920	5,000.00	658.00	294.50	952.50	275.00		677.50
Macdonald Memorial Scholarship in Music	1922	6,000.00	10.46	353.40	363.86	345.00		18.86
Macdonald College Agricultural Alumni Association Memorial Scholarship	1920	4,062.92	208.61	230.35	438.96	250.00		188.96
Macdonald Scholarship Fund	1871	25,000.00	8,401.65	1,836.60	10,238.25	1,725.00		8,513.25
Macdonald Travelling Scholarship in Law	1902	23,635.00	3,108.61	1,178.00	4,286.61	650.00	3,635.00	1.61
Mackenzie, Alexander, Memorial Fund	1902	18,745.00	2.58	1,059.32	1,061.90	300.00	760.00	1.90
MacRae Scholarship, The	1923	3,066.25	29.89	180.60	210.49	190.00		20.49
Macrae, John, Scholarship	1920	10,500.00	Dr. 53.20	29.45	Dr. 23.75	600.00	Dr.	623.75
Notre Dame de Grace Women's Club Scholarship	1924			150.00	150.00	150.00		
Oliver, Allen, Scholarship Fund	1918	10,000.00	566.00	589.00	1,155.00	1,150.00		5.00
Ottawa Valley Graduates' Society Exhibition	1902			75.00	75.00	75.00		
Peterson, Sir Wm., Memorial Scholarship Fund	1921	6,055.42	4.15	356.66	360.81	345.00		15.81
Prince Edward Island Scholarship Fund	1911		70.13	1.75	71.88			71.88
Redpath, Jane, Exhibition Fund	1868	2,150.00	6.90	126.64	133.54	115.00		18.54
Robb, Janet Morison, Bursary Macdonald College	1920	2,000.00	Dr. 1.80	117.80	116.00	120.00	Dr.	4.00
Ross, P. S., Exhibition	1911					100.00	Dr.	100.00
Rotary Club Scholarship	1924			150.00	150.00	150.00		
Rowat, Lieut. Thomas Alexander, Memorial Scholarship Fund	1920	1,000.00	61.60	58.90	120.50			120.50
Scott, Barbara, Scholarship Fund	1880	2,000.00	579.66	117.80	697.46	115.00		582.46
Scott, Walter, Exhibition Fund	1872	1,100.00	164.20	64.79	228.99	130.00		98.99
Snyder, Charles M., Memorial Scholarship	1921	5,000.00		250.00	250.00			250.00
Social Service Bursaries	1924			15.00	15.00	15.00		
Trafalgar Scholarship Fund	1913	2,450.00	23.69	144.30	167.99	135.00		32.99
Vineberg, Dr. Hiram N., Scholarship	1924			250.00	250.00			250.00
Westmount School Commissioners Exhibition	1916			250.00	250.00	200.00		50.00
Forward		309,662.65	3,833,72	27,272.68	31,106,40	19,633.04	7,795.37	3,677.99

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

FUNDED REVENUE ACCOUNTS
MAY 31st, 1925

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st, 1924	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1925
Forward		309,662.65	3,833.72	27,272.68	31,106.40	19,633.04	7,795.37	3,677.99
FELLOWSHIPS								
Ami, Dr. H. M., Fellowship in Geology	1923		37.50	300.00	337.50	337.50		
Browne, Dr. A. A., Memorial Fund	1911	10,000.00	7,806.97	1,048.83	8,855.80	500.00		8,355.80
Carpenter Philip P., Fellowship Fund	1892	20,000.00	6.89	1,178.00	1,184.89	1,199.97		Dr. 15.08
Dawson, Sir William, Fellowship Fund	1899	14,523.00	3,409.55	740.38	4,149.93	750.00	3,400.00	Dr. .07
Douglas, Dr. James, Research Fellowship in Mining	1914	12,400.00	2,422.22	731.67	3,153.89	750.00	2,400.00	3.89
Douglas, Dr. James, Research Fellowship in Pathology	1911	25,000.00	2,658.20	1,538.95	4,197.15	2,465.88		1,731.27
Douglas, Dr. James, Studentship in Pathology	1914		2,042.12	102.10	2,144.22	125.00		2,019.22
Douglas, Dr. James, Tutorship in Faculty of Applied Science	1911	25,000.00	1,145.93	1,472.50	2,618.43	1,599.36		1,019.07
Flinn, John W., Research Fellowship in Tuberculosis	1921		1,008.34	1,034.57	2,042.91			2,042.91
Harrington, Dr. B. J., Research Fellowship in Mining	1920	3,680.00	88.35	209.86	298.21	250.00		48.21
Leroy Memorial Fellowship in Geology	1921	11,560.00	356.27	671.49	1,027.76	700.00		327.76
Metallurgical Research Fellowship	1920	325.00		640.00	640.00	640.00		
McArthur Irwin Co. Research Fellowship	1923		Dr. 154.60	917.78	763.18	740.69		22.49
Montreal Manufacturers Graduate Fellowship in Economics	1923		2,777.85	148.17	2,926.02	800.00		2,126.02

LIBRARY FUNDS

Applied Science Library Fund	1907	5,250.00		92.22	309.23	401.45	210.69			190.76
Baillie, Lieut. George I., Memorial Library Fund in Chemistry	1920	25,000.00		742.62	1,125.00	1,867.62	1,835.68			31.94
Blackader, The, Gordon Home Memorial Fund	1917	10,100.00	Dr.	98.76	780.89	682.13	822.61		Dr.	140.48
Blacker Library of Zoology	1921	10,000.00		238.38	19,999.89	20,238.27	9,718.80			10,519.47
Dawson, Sir. Wm., Memorial Library Fund	1897			178.97	530.79	709.76	174.75			535.01
Douglas, Dr. James, Library Fund Books	1916	15,000.00		257.40	883.85	1,141.25	1,861.85		Dr.	720.60
Drummond, William Henry Memorial Fund	1911	10,000.00		229.65	589.00	818.65	224.79			593.86
Gardner, Dr. William, Book Fund	1915			8.41		8.41				8.41
Gould, C. H., Memorial Book Fund	1920			.86		.86				.86
Hickson, Lady, Library Fund	1920	5,000.00		196.49	294.50	490.99	324.83			166.16
Lane, Dr. J. A., Library Fund in Medicine	1921			.81		.81				.81
Maccabean Circle Book Fund	1914			131.97		131.97	130.11			1.86
Macdonald Philosophical Book Fund	1904	1,000.00		30.96	73.46	104.42	111.75		Dr.	7.33
McLennan, Francis Library Endowment	1925	15,000.00		8.38	251.20	259.58	226.05			33.53
McLennan, Hugh S., Library Fund	1892	250.00		15.79	14.73	30.52	8.29			22.23
Molson, Wm., Library Fund	1871	4,400.00		135.38	259.16	394.54	213.90			180.64
Murray, Dr. J. Clarke, Philosophical Book Fund	1914	1,000.00	Dr.	1.31	58.90	57.59	59.89		Dr.	2.30
Murray, Dr. D. A., Book Fund	1924			100.00		100.00	100.00			
Redpath, Alice E., Book Fund	1913	500.00	Dr.	10.41	29.45	19.04				19.04
Redpath, John R., Library Fund	1911			13.91		13.91	13.91			
Redpath, P. W. & J. C., Book Fund	1924				463.91	463.91	351.08			112.83
Redpath, William Wood, Memorial Fund—Library and Faculty of Applied Science	1881	1,000.00		149.37	58.90	208.27	114.42			93.85
Roddick, Sir Thomas and Lady, Library Fund	1920	5,000.00		116.43	310.70	427.13	300.89			126.24
Shepherd, Dr. F. J., Library Endowment Fund in Medicine	1920	500.00		45.34	29.45	74.79	48.06			26.73
Thornton, H. W., Memorial Fund	1908	3,000.00	Dr.	512.18	176.70	Dr. 335.48			Dr.	335.48
Torrance Philosophy Book Fund	1876	1,000.00	Dr.	7.50	58.90	51.40	24.15			27.25
Travelling Libraries (McLennan)	1900	20,000.00	Dr.	463.04	3,051.23	2,588.19	2,498.33			89.86
Travelling Library Extension	1922			207.52		207.52	23.01			184 51
Veterinary Book Fund	1907	423.91		28.19	24.97	53.16				53.16
Forward		565,574.56		29,275.16	67,381.79	96,656.95	49,889.28	13,595.37		33,172.30

SCHEDULE E

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

STATEMENT OF FUNDS HELD FOR SPECIAL PURPOSES

FUNDED REVENUE ACCOUNTS

31st May, 1925

TITLE OF FUND	Date Established	Endowed With	CASH STATEMENT					
			Balance June 1st, 1924	Receipts for Year	Total Credits	Disbursements for Year	Capitalized	Balance May 31st, 1925
Forward		565,574.56	29,275.16	67,381.79	9,656.95	49,889.28	13,595.37	33,172.30
LIBRARY FUNDS—(Cont'd.)								
Wilson, Mrs. E. Graham, Book Fund	1920		156.02		156.02			156.02
Wood, Casey A., Medical Library Fund	1912	3,000.00	64.25	150.00	214.25	55.16		159.09
Wood, Dr. Casey A., University Library Fund	1920		Dr. 622.19	2,617.74	1,995.55	826.15		1,169.40
MISCELLANEOUS								
Applied Science Loan Fund, Class 1899	1899		123.40		123.40			123.40
Byers, Dr. and Mrs. W. Gordon, Equipment Fund for Ophthalmic Clinic-Royal Victoria Hospital	1920		186.33		186.33			186.33
C.A.M.C. War Museum	1923		450.00	300.00	750.00	75.00		675.00
Chemistry Dept. Special Fund	1906	5,225.00	39.37	290.08	329.45		300.00	29.45
Cooper, James, Endowment for Internal Medicine	1912	62,000.00	2,128.58	3,777.16	5,905.74	3,194.60		2,711.14
Cooper, James, Fund for Anatomy	1921		375.00	7.50	382.50	382.50		
Cooper, James, Fund for Fracture Clinic, Montreal General Hospital	1923		500.00		500.00			500.00
Cooper, James, Fund for Medical Museum	1912		Dr. .10	100.10	100.00	100.00		

Cooper, James, Fund for Department of Pathology	1921	.....	243.05	.....	243.05	63.55	.....	179.50
Cooper, James, Fund for Department of Physiology	1921	.....	427.41	.....	427.41	323.01	.....	104.40
Cooper, James, Fund in favour of Dr. Jessie Boyd	1923	.....	250.00	.....	250.00	250.00	.....	.....
Cooper, James, Fund in favour of Dr. J. F. Burgess	1923	.....	150.00	.....	150.00	150.00	.....	.....
Davidson, Thos. Mfg. Co., Equipment Fund	1923	.....	50.00	.....	50.00	.....	.....	50.00
Election of Fellows Fund	1880	1,630.00	97.47	96.01	193.48	97.47	.....	96.01
Frost, G. H., Loan Fund	1911	.....	5,205.35	1,359.26	6,564.61	1,870.00	.....	4,694.61
Herdt, Professor L. A., Electrical Equipment Fund	1920	.....	500.00	.....	500.00	.....	.....	500.00
Hersey, Dr. Milton L., Metallurgical Equipment Fund	1910	9,500.00	412.51	559.55	972.06	422.30	.....	549.76
International Association of Medical Museums	1913	5,000.00	144.00	298.50	442.50	330.49	.....	112.01
Johnson, Dr. F. M. G., Donation	1922	.....	15.46	.....	15.46	.....	.....	15.46
Lyman, Henry H., Entomological Fund	1914	40,000.00	4,012.32	2,592.32	6,604.64	2,027.19	.....	4,577.45
Macdonald Auxiliary Fund	1897	395,250.00	.....	23,280.23	23,280.23	23,280.23	.....	.....
Macdonald Buildings Repair Fund	1900	15,000.00	12,335.31	1,828.50	14,163.81	387.29	.....	13,776.52
Macdonald College, Jos. E. Caron, Investment Account	1906	.....	10,500.00	500.00	11,000.00	500.00	.....	10,500.00
Macdonald Experimental Psychology Fund	1904	5,000.00	836.62	367.32	1,203.94	395.30	.....	808.64
Macmillan, John A., Equipment Fund for Ophthalmological Dept. of Royal Victoria Hospital	1920	.....	100.00	.....	100.00	.....	.....	100.00
Osler Pathological Collection Donation	1920	.....	15.98	.....	15.98	.....	.....	15.98
Osler, Lady, Donation for the Osler Pathological Collection	1924	.....	100.00	.....	100.00	.....	.....	100.00
Post Graduate Fund—Faculty of Medicine	1906	.....	1,012.65	671.26	1,683.91	443.56	.....	1,240.35
Soldiers Memorial Fund	1920	.....	6,103.17	359.48	6,462.65	.....	.....	6,462.65
Stewart, Walter M., Equipment Fund	1922	.....	3,552.38	20.45	3,572.83	2,919.35	.....	653.48
Superannuation Fund	1894	415,000.00	19,632.88	25,599.88	45,232.76	13,637.27	.....	31,595.49
Tooke, Dr. F. T., Equipment Fund for Eye Dept., Royal Victoria Hospital	1920	.....	100.00	.....	100.00	.....	.....	10.00
Undergraduates' Gym. Fund	1910	.....	527.00	13.17	540.17	.....	.....	540.17
Total	.....	$1,522,179.56	$98,999.38	$132,170.30	$231,169.68	$101,619.70	$13,895.37	$115,654.61

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING
STATEMENT OF INCOME AND EXPENDITURE
For Year Ending May 31st, 1925, with Comparative Figures for Year Enging May 21st, 1924
ACCOUNT, LOSS AND GAIN

INCOME

Faculties and Departments	Interest	Fees	Other Income	Total Income Year Ending May 31, 1925	Total Income Year Ending May 31, 1924
Applied Science, Faculty of	$ 39,242.37	$ 80,591.80	$ 531.55	$ 120,365.72	$ 129,907.50
Arts, Faculty of	38,739.09	53,416.90	2,949.61	95,105.60	80,094.09
Commerce, Department of	1,292.50	27,215.50	7,000.00	35,508.00	34,939.90
Law, Faculty of	25,136.64	8,766.00	29.00	33,931.64	36,295.11
Medicine, Faculty of	111,230.89	91,200.19	7.00	202,438.08	236,746.49
Dentistry, Faculty of	.....	17,995.68	62.00	18,057.68	20,648.12
Music, Faculty of	18,049.14	25,181.63	907.63	44,138.40	47,442.21
Physical Education—School	.....	6,994.50	.....	6,994.50	8,356.49
University Account	378,497.33	.....	35,000.00	413,497.33	397,460.08
Extension Lectures	.....	9,599.50	.....	9,599.50	11,962.25
Redpath Museum	1,911.64	.....	.....	1,911.64	1,914.37
Graduate Nurses School	.....	1,966.00	.....	1,966.00	7,132.50
Observatory	.....	.....	3,097.50	3,097.50	3,065.62
Redpath Library	7,175.36	.....	.....	7,175.36	7,329.07
Graduate School	.....	2,490.50	.....	2,490.50	2,072.50
Athletic Board	.....	.....	37,666.20	37,666.20	28,979.94
	$621,274.96	$325,418.20	$87,250.49	$1,033,943.65	$1,054,346.24

EXPENDITURE

Faculties and Departments:	Salaries	Wages	Other Expenses	Total Expenses Year Ending May 31, 1925	Total Expenses Year Ending May 31, 1924
Applied Science, Faculty of	$124,547.54	$ 24,664.19	$118,798.22	268,009.95	260,653.00
Arts, Faculty of $269,026.95					
Less allowance from R.V.C. and Commerce 47,875.00	118,348.75	.....	102,803.20	221,151.95	165,560.47
Law, Faculty of	27,264.90	.....	12,489.19	39,754.09	38,922.49
Medicine, Faculty of	138,585.11	27,008.35	138,042.59	303,636.05	319,500.82
Dentistry, Faculty of	24,353.31	1,300.00	38,392.25	64,045.56	58,798.57
Commerce, Department of	15,127.21	.....	34,838.84	49,966.05	40,453.45
Music, Faculty of	32,250.90	.....	12,678.41	44,929.31	44,540.79
Physical Education—School	7,572.00	.....	6,590.18	14,162.18	12,279.98
McCord National Museum	2,400.00	.....	3,579.27	5,979.27	5,045.25
Graduate Nurses School	5,755.80	.....	8,345.83	14,101.63	8,790.80
Observatory	2,635.00	.....	922.06	3,557.06	3,596.01
Redpath Museum	1,425.00	.....	10,894.46	12,319.46	5,424.01
Redpath Library	25,578.74	2,698.50	41,959.11	70,236.35	69,793.71
Extension Lectures	12,970.06	417.05	3,329.69	16,716.80	15,187.20
Graduate School	1,044.26	.....	2,192.31	3,236.57	1,981.30
Athletic Board	11,474.94	1,120.72	31,735.66	44,331.32	37,776.59
Faculty Club	.....	.....	2,324.33	2,324.33	.....
	$551,333.52	$ 57,208.81	$569,915.60	$1,178,457.93	$1,088,304.44
Deficit on Ordinary Maintenance	.....	.....	.....	134,104.11	7,645.06
Expenditures on Special Appropriations (See Schedule J.)	.....	.....	.....	10,410.17	26,313.14
Total Deficit	.....	.....	.....	$ 144,514.28	$ 33,958.20
The expenses of the following departments have been distributed over the other Departments and Faculties and are included in the figures shown on the above Statements:					
University Charges	67,197.58	3,237.32	90,327.63	160,762.53	94,096.13
Light, Heat & Power Stations	2,500.00	15,498.01	50,179.93	68,177.94	70,930.49
Physics Department	36,885.54	6,574.69	18,576.28	62,036.51	59,632.82
Chemistry Department	34,129.83	3,992.22	12,556.87	50,678.92	50,575.93
Physical Education Department	15,818.48	2,735.00	7,905.00	26,458.48	23,318.31
Botanical & Biological Department	14,619.89	1,149.99	9,807.73	25,577.61	26,302.24
Zoological Department	11,350.00	1,300.69	5,426.70	18,077.39	17,396.45

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

COMPARATIVE STATEMENT OF INCOME AND EXPENDITURE
For Years Ending May 31st, 1925, and May 31st, 1924

FUNDED AND RESTRICTED ACCOUNTS

INCOME

Faculties and Departments	Interest	Other Income	Total Income Year Ending May 31, 1925	Total Income Year Ending May 31, 1924
Macdonadl College	$214,373.00	.....	$214,373.00	$217,472.37
Faculty Club	.....	12,975.89	12,975.89	.....
Income Account, Funded Revenue Ledger	91,554.55	40,615.75	132,170.30	119,598.89
Total Income	$305,927.55	$ 53,591.64	$359,519.19	$337,071.26

EXPENDITURE

Faculties and Departments	Salaries	Other Expenses	Total Expenses Year Ending May 31, 1925	Total Expenses Year Ending May 31, 1924
Macdonald College	.....	$215,623.28	$215,623.28	$209,972.30
Faculty Club	.....	11,887.25	11,887.25	.....
Expenditure Account, Funded Revenue Ledger	.....	115,515.07	*115,515.07	103,992.11
Total Expenditure	.....	$343,025.60	$343,025.60	$313,964.41
Excess Income	.....	.....	16,493.59	23,106.85

*Item of $115,515.07 includes transfer to Capital Account of $13,895.37.

RECEIPTS ON CAPITAL ACCOUNT

For Year Ending May 31st, 1925

ENDOWMENTS AND DONATIONS:		
Centennial Endowment Fund (Addl.)		$457,147.81
Rockefeller Foundation Endowment for Medical Clinic		503,382.10
Strathcona Chair of Zoology (Balance)		96,000.00
Sun Life Assurance Co.'s Junior Lectureship in Mathematics (Balance)		5,000.00
Faculty of Music Endowment (Balance)		100.00
Philip S. Ross Demonstratorship (Addl.)		1,600.00
Dr. B. J. Harrington Research Scholarship (Addl.)		200.00
Macdonald College Agriculture Alumni Association Memorial Scholarship (Addl.)		280.00
Francis McLennan Library Endowment		15,000.00
Lady Strathcona Donation of Lorne Crescent Property		50,700.00
Royal Victoria Hospital Donation for Pathological Building		15,029.21
Donations towards construction of Extension to the Engineering Building for Electrical Department		23,000.00
Donations towards purchase price of Faculty Club Property (Addl.)		10,000.00
Funded Revenue Ledger—Schedule "E"		13,895.37
Interest on following Funds:—		
Dr. James Douglas Donation for Dormitories	$11,780.00	
Donations for Dormitories Fund	7,355.82	
Chemistry and Mining Building Equipment	159 99	19,295.81
Capitalized Revenue:		
Poultry Houses and Extension—Macdonald College:		
Repayment from Revenue	$ 1,014.30	
Equipment Shed—Macdonald College:		
Repayment from Revenue	460.53	
Books for University Library:		
Repayment from Revenue	45,999.28	
Books for Medical Library:		
Repayment from Revenue	5,403.47	52,877.58
		$1,263,507.88
DEDUCT:		
Graduate Society of McGill University, Handed to Graduate Society		262.48
		$1,263,245.40

ROYAL INSTITUTION FOR THE ADVANCEMENT OF LEARNING

DISBURSEMENTS ON CAPITAL ACCOUNT

For Year Ending May 31st, 1925

BUILDINGS AND EQUIPMENT:

Chemistry Department Equipment (Addl.)	$ 617.34
Light, Heat and Power Building Extension (Addl.)	150.09
Engineering Building Extension (Part)	67,730.37
Pathological Building (Addl.)	37,895.86
Pathological Building Equipment (Addl.)	5,640.28
Poultry Houses—Macdonald College	339.30
Equipment Shed—Macdonald College	1,135.53
Books for University Library purchased during year	45,999.28
Books for Medical Library purchased during year	5,403.47
	$ 164,911.52

CREDIT:

Dental Building and Equipment—Montreal General Hospital: Repayment from revenue—4th instalment	$4,000.00	
Equipment Shed—Macdonald College: Repayment from revenue	675.00	
New Animal House Building: Transferred to Maintenance Account	1.00	
		4,676.00
		$ 160,235.52

ROYAL VICTORIA COLLEGE

BALANCE SHEET

ASSETS

		May 31, 1925	May 31, 1924
CURRENT ASSET:			
Cash in Bank		$ 27,367.54	$ 37,307.34
INVESTMENTS (Schedule A)		1,225,407.05	1,202,550.57
GROUNDS BUILDINGS AND EQUIPMENT (Schedule B)		434,000.00	434,000.00
INTEREST DUE		1,500.00	1,500.00
		$1,688,274.59	$1,675,357.91

LIABILITIES

CURRENT LIABILITIES:			
R.V.C. Undergraduates Society	$ 51.25		
McGill University	5,295.86		
		5,347.11	15,097.36
ENDOWMENTS AND DONATIONS (Schedule C)		1,593,925.91	1,583,150.73
RESERVES:			
Royal Victoria College Reserve Fund		69,669.26	65,899.80
DEFERRED CREDITS:			
Interest Unallocated		1,500.00	1,500.00
LOSS AND GAIN:			
Gain on Revenue	$17,579.31		9,661.72
Gain on Investments	253.00		48.30
		17,832.31	
		$1,688,274.59	$1,675,357.91

MONTREAL, 24 July, 1925.

Audited and verified, subject to our report of this date.

MACINTOSH, COLE & ROBERTSON,
Chartered Accountants.

CERTIFIED CORRECT:

A. P. S. GLASSCO,
Bursar.

S. R. BURRELL,
Asst. Bursar.

ROYAL VICTORIA COLLEGE

SCHEDULE "A"

Investments—May 31st, 1925

	Revenue	Capital
MORTGAGES:		
Average rate 6.50%	3,640.00	56,000.00
BONDS:		
Average rate 5.76%	35,210.91	615,637.05
STOCKS:		
Average rate 6.64%	37,027.00	553,770.00
Total average rate 6.19%	$ 75,877.91	$1,225,407.05

SCHEDULE "B"

GROUNDS, BUILDINGS AND EQUIPMENT:	
Royal Victoria College Property	$ 376,000.00
Royal Victoria College Building Equipment	58,000.00
	$ 434,000.00

SCHEDULE "C"

ENDOWMENTS AND DONATIONS:	
Capitalized Revenue for Residence Building	$ 74,152.54
Residence Building Fund	125,000.00
Strathcona Donation for Buildings and Grounds	434,000.00
Strathcona Endowment	960,773.37
	$1,593,925.91

ROYAL VICTORIA COLLEGE

Income and Expenditure for Year Ending May 31st, 1925

GENERAL MAINTENANCE

RECEIPTS:		1924–25	1923–24
Balance on Hand		Nil	$ 134.94
Interest on Investments	$55,543.61	.....	60,442.93
Lunches	8,135.77	.....	6,815.48
Fees	57,488.44	.....	56,394.67
		121,167.82	
		$ 121,167.82	$ 123,788.02
EXPENDITURES:			
Salaries		$ 9,556.92	7,916.71
Materials, Supplies and Equipment		*58.65*	61.00
Books		78.76	145.58
Printing and Stationery		1,915.37	1,868.72
Travelling Expenses		Nil	122.00
Miscellaneous		2,555.77	3,035.73
Transferred to the following Departments:			
Faculty of Arts	$37,000.00		
Physical Education	3,500.00		
University Charges	10,000.00		
		50,500.00	50,500.00
Board and Residence		27,739.96	27,513.25
Building Maintenance		20,962.10	22,963.31
Surplus for year transferred to Loss and Gain Account		7,917.59	9,661.72
		$ 121,167.82	$ 123,788.02

ROYAL VICTORIA COLLEGE

Income and Expenditure for Year Ending May 31st, 1925

FUNDED REVENUE AND RESTRICTED ACCOUNTS

	1924–25	1923–24
RECEIPTS:		
Interest on Investments	$ 14,544.64	$ 15,047.54
DISBURSEMENTS:		
Revenue Capitalized:		
R.V.C. Reserve Fund	3,769.46	3,899.80
Residence Building Fund	10,775.18	11,147.74
	$ 14,544.64	$ 15,047.54

MACDONALD COLLEGE
BALANCE SHEET AS AT 30th JUNE, 1925

ASSETS

	June 30, 1925	June 30, 1924
CURRENT ASSETS:		
Cash	$ 6,438.08	$ 2,187.60
Accounts Receivable	13,106.80	18,871.37
Merchandise and Supplies	50,568.46	51,153.15
	$ 70,113.34	$ 72,212.12
DEFERRED CHARGES:		
Insurance	$ 8,281.18	$ 7,158.10
Operating Charges	3,123.20	1,223.41
	$ 11,404.38	$ 8,381.51
	$ 81,517.72	$ 80,593.63

LIABILITIES

CURRENT LIABILITIES:		
Caution Money and Other Deposits	467.40	539.19
Students' Council, Societies and Others	3,992.55	435.03
	$ 4,459.95	$ 974.22
FUNDED REVENUE AND DEPARTMENT:		
Balance July 1st, 1924	21,759.13	16,814.13
Current Period—Excess Expenditure	14,405.62	*Cr.* 4,945.00
	$ 7,353.51	$ 21,759.13
RESERVES:		
Material Stock Reserve	Nil	21,237.33
McGILL UNIVERSITY	58,821.57	20,176.77
SURPLUS:		
Excess Income for Year	11,419.60	18,385.83
Less Operating Charges	536.91	1,939.65
	$ 10,882.69	$ 16,446.18
	$ 81,517.72	$ 80,593.63

Montreal, 27th July, 1925.
Audited and verified subject
to our report of this date.
(Signed)
MACINTOSH, COLE & ROBERTSON,
Chartered Accountants.

St. Anne de Bellevue, 13th July, 1925.
Certified Correct,
(Signed)
T. FRED. WARD,
Bursar.
JAS. H. CURRIE,
Accountant.

MACDONALD COLLEGE

STATEMENT OF INCOME AND EXPENDITURES

Year Ended June 30th, 1925

	June 30, 1925	June 30, 1924
INCOME:		
Interest	$ 214,373.00	$ 217,000.51
Faculty of Agriculture	52,383.61	51,218.07
School of Household Science	9,883.87	9,217.29
School for Teachers	11,186.00	23,207.50
Residences	54,749.79	49,274.05
Dining Room	79,960.80	81,590.57
Post Office	1,828.75	1,867.84
Laundry Dept.	8,671.48	7,866.89
Miscellaneous	5,296.12	5,675.36
	$ 438,333.42	$ 446,918.08
EXPENDITURE:		
Faculty of Agriculture	$ 117,510.11	$ 116,320.97
School of Household Science	16,968.15	16,624.78
School for Teachers	43,038.46	41,874.98
Bacteriology Department	7,280.89	6,548.94
Botanical Department	9,084.47	8,499.08
Chemistry Department	8,708.75	8,749.88
Entomology and Zoology	5,920.65	5,730.15
Physics Department	1,828.86	2,738.70
Library and Reading Room	4,411.08	4,294.24
Dining Room	63,787.08	65,196.64
Post Office	528.09	529.39
Laundry	6,968.92	6,469.90
Power House	67,332.01	66,832.27
College Administration, General	32,278.15	31,522.61
College Buildings—Maintenance	11,083.80	13,119.77
Residences—Maintenance	26,329.64	29,179.39
College Grounds—Maintenance	3,854.71	4,300.56
	$ 426,913.82	$ 428,532.25
Surplus for year	$ 11,419.60	$ 18,385.83

STATEMENT OF McGILL UNIVERSITY CENTENNIAL ENDOWMENT CAMPAIGN

November 15th-20th, 1920, to 31st August, 1925

Total Amount Subscribed to Campaign			$6,445,267.54
Less—Cash Subscriptions, Exchange and Interest			277,848.24
			$6,167,419.30
Less—Cancellations to May 31st, 1925			37,895.03
Net Pledges			$6,129,524.27
Received since Campaign on account of pledges:			
	Cash	Securities	
To 31st August, 1925	$3,712,892.39	$2,110,714.67	5,823,607.06
			$ 305,917.21
General subscriptions for 1921		$1,592,349.91	
Province of Quebec subscription		1,000,000.00	
Rockefeller Foundation subscription		1,000,000.00	
		$3,592,349.91	
Amount received to 31st August, 1925		$3,560,622.87	
1921 Balance			$ 31,727.04
1922 subscriptions	$ 750,616.77		
Amount received	720,164.07		
1922 Balance		30,452.70	
1923 subscriptions	$ 654,354.05		
Amount received	598,646.30		
1923 Balance		55,707.75	
1924 subscriptions	$ 555,803.08		
Amount received	496,991.90		
1924 Balance		58,811.18	
1925 subscriptions	$ 583,848.31		
Amount received	454,629.77		
1925 Balance		129,218.54	
			$ 305,917.21

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